

Aquinas as Representationalist:
The Ontology of the *Species Intelligibilis*

by

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ad maiorem Dei gloriam

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Abstract

The present study argues against a traditional view that describes Aquinas' epistemology as direct realism. This view arises from the fact that Aquinas denies any type of representation or indirect realism and a knower is able to grasp the essence of extramental things. According to Aquinas, however, there is mediation between the individual extramental thing's *form* and the mind: the *species intelligibilis*. The *species*' role is to transmit information in a way that allows an extramental thing's essence to be known, but not the *species* itself. Therefore, what Aquinas means by representation is that the ultimate object of knowledge is an extramental thing known through an immediate object of knowledge, the *species*. Likewise, because knowledge is about essence, it is assumed that the *species* is either a copy of the individual extramental thing's *form* or it delivers the thing's *form* to the mind. Nevertheless, the *species* differs ontologically from the extramental thing's *form*, and does not "carry" the extramental thing's *form*; indeed, none of this is possible, because the extramental thing's *form* is a principle of the composite, the *causa essendi* of a thing, while the abstracted thing's *form*, considered as essence or nature, is an intelligible structure suitable for knowledge, not a being. Consequently, a *species* only represents the thing's essence by conveying essential information to the mind.

Introduction

In epistemology, Aquinas is traditionally regarded not only as a direct realist, but sometimes even as a naïve realist. A direct realist holds that an extramental being is known immediately via concepts or mental entities, which are the mere biological or mechanical means to grasp the essence or features of extramental things. Direct realism roughly opposes representationalism. A representationalist view supports that the knower is aware of subjective representations of the external world. Extramental things are known indirectly by a mediated causal inference from our represented features that correspond to extramental things' features. Although Aquinas' ontology is realist, his epistemological stance has been neglected due to his ontological realism.

Aquinas holds a view in which we can definitely know the essences of extramental things as they really are. Thus, it can hardly be denied that he is a realist in

epistemology. This account, however, is neither a necessary nor a sufficient condition for classifying him as a *direct* realist in epistemology. An analysis of his epistemology reveals that he maintains that the object of knowledge is other than the extramental thing: the thing is known indirectly through a mental representation. Accordingly, we claim that Aquinas holds a view better called “realist representationalism,” in which the object of knowledge preserves all the features of an extramental thing but in an essential way, not as it is in sensible reality. This view must be distinguished from “representative realism,” which holds that a knower is aware of concepts that allow him to know extramental things, but the concepts do not preserve all the extramental things’ features; a knower knows an extramental thing indirectly, but also incompletely. The position, essentially, is Locke’s indirect realism, developed in his account of primary and secondary qualities. This means that to be a representationalist does not prevent Aquinas from being a realist. Both views, direct realism and realist representationalism, acknowledge the existence of mental beings in order to grasp an extramental thing’s features, and both hold that an extramental thing can be known. The difference between them is found exclusively in the epistemological distinction given by the immediateness of cognition. However, the main point of this dissertation is to describe Aquinas’ epistemology, and not to argue for or against the factual value of realist representationalism or direct realism.

An inquiry into a key element in Aquinas’s cognition, the *species intelligibilis*, proves him to be a representationalist. A *species* is defined as a representation or likeness of an extramental thing: it conveys an extramental thing’s essential information. Aquinas believes that every time we have a cognitive experience, we receive the abstracted essence of an extramental thing, not as the individual essence subsists in the sensible

world, but in a way in which we can know it. This way of receiving an essence is called ‘abstracted *form*.’ When an individual extramental thing’s *form* is apprehended, we do not apprehend an individual *form* as such, but an intelligible or abstracted *form*. The difference between the extramental thing’s *form* and the abstracted *form* is ontological: for Aquinas, the abstracted *form* exists in a mode of being different from the mode of being in which individual essences exist. Therefore, the center of our attention is the ontology of the *species intelligibilis*, which represents extramental entities. Our concern is with the way in which these acts of cognition are possible, and the viability of a realist representationalism of Aquinas’ epistemology.

From an epistemological point of view the pertinent question is: how we can know the essence of a thing? This is to say, how does the *species* convey the essence? The thesis defended in this dissertation is that the *species* is not *informed* as an extramental thing’s *form informs* a physical extramental thing, because its mode of being differs from an extramental thing’s *form*. Nor is the *species* a being that “copies” or “carries” the individual extramental thing’s *form*. The *species* is nothing but a likeness of the extramental thing’s essence. Indeed, this is the way that the *species* transmits information about the extramental thing, as a likeness of an individual extramental thing’s *form*: it shares the same essence with the thing but it has its own way of existence, making the thing’s essence suitable for human knowledge. Because the individual extramental thing’s *form* itself cannot be “carried” into the mind, a special *form* is needed for cognition: this is the *species intelligibilis*. Aquinas is a realist representationalist because he maintains that this grasp of an extramental essence is different from the *species*, but known by means of *it*.

If knowledge of the (passive) intellect consists in an identification of the intellect of a knower with an intelligible structure or nature, this identification is possible because the *species* conveys the extramental thing's *form* considered as essence. This is Aquinas' cognitive explanation: there is no direct cognition, but an indirect cognition through a *species*. As Klima claims, the *species* is the immediate –not the ultimate– object of knowledge. From an ontological point of view, Aquinas is a realist insofar as the ultimate object of knowledge is an extramental thing. To put it more precisely, the ultimate object of knowledge is the essence of a thing considered as intelligible structure. However, we must insist that a *species* is not a “vehicle” that “carries inside it” the individual extramental thing's *form*, but another knowable *form*, which represents the thing's essence considered as intelligible structure. A nature is not another being, different from the extramental thing's *form*. An essence is not even an intelligible being “carried” by a *species*; the *species* merely conveys an intelligible structure by which an extramental thing's information reaches the mind and is only an instantiation of the nature in the mind.

This study is intended to provide a better understanding of Aquinas' philosophy and to debunk a myth about his naïve epistemology. Aquinas can be regarded as a reluctant forerunner of the modern notion of “idea.” For, although Aquinas never conceived of his view as any kind of modern representationalism, his explanation turns out to be an open way to read the *species* as a foundation for the late medieval “objective concept,” which eventually leads to speculation about both the ontological status and the content of such mental entities. Modern thinkers such as Descartes and Locke received an

antecedent of their “ideas” in the late scholastic notion of objective concepts, as well as a foundation for the so-called modern subjectivism.

Furthermore, the present dissertation concerns itself with the view that the notion of representation should not necessarily be tied to traditional modern representationalism (set in motion by Descartes and Locke), which creates a distance between concepts and things. This is why many Thomist scholars, aware of the difference between an extramental thing’s *form* and the *species*, still reject a representational view of Aquinas. However, because representationalism in their view implies non-realism, Aquinas should not be regarded as a representationalist, insofar as this interpretation is erroneously based on a misconception concerning representation.

The view that Aquinas is a representative realist is quite new. Claude Panaccio, Paul Hoffman, and Gyula Klima have recently defended it, and it has also been affirmed –but not fully explained– by Richard Taylor and Max Herrera, Bernardo Carlos Bazán, Meyrick Carré, Peter King, Henrik Lagerlund, and Martin Tweedale. Despite a broad analysis, Robert Pasnau maintains a critical though not conclusive position about Aquinas’ representationalism. The earliest argument we have found in favor of Aquinas’ representationalism is from Pierre Rousselot, in the first quarter of the twentieth century, although he does not use our contemporary terminology, and never calls Aquinas a representationalist. Still, he explicitly states that the *species* is a representation.

This project put us in the uncomfortable situation of proving that Aquinas is a realist representationalist, despite his alleged denial of epistemic representationalism, and does not deny a representative function of the *species*, affirming only that the ultimate object of knowledge is an extramental thing. His view of cognition is based on an

ontological viewpoint, according to which the knowledge of extramental essence is possible. That being said, we attempt a coherent view of the problem, following a description of the cognitive act, rather than surveying Aquinas' many and complex pronouncements. We do not offer any new text or piece of information that has not been previously analyzed. Nevertheless, we do offer a new interpretation of the already available material for Aquinas.

Our purpose is to introduce some few terminological distinctions between representative realism and indirect realism, as well as to provide further explanations of the meaning of representation, given that there is great confusion about the terms, labels, and classifications with regard to it. We do not mean that one can classify Aquinas as a representationalist by modifying the label to fit his position, but a clear concept about representationalism describes Aquinas' explanation of cognition. Finally, in dealing with cognition, it makes more sense to analyze the texts from an epistemological point of view rather than from an ontological one.

The present study is limited to a comparison of Aquinas' alleged epistemological direct realism and the position called realist representationalism. A distinction will be introduced between direct and indirect realism, as well as between representative realism and realist representationalism. Representationalist theories may also include either a moderate (Kantian) or an extreme (Berkelian) idealism or antirealism, but these views are beyond the scope of this investigation. Finally, this study does not deal with the epistemological justification of sensory perceptions, and this dissertation, in particular, only intends to show how realist representationalism fits Aquinas' account of cognition.

We assume that it will be clearly established that representative realism can access extramental things' essences as much as does direct realism.

This work is divided into four chapter. The first chapter begins with a short account of Aquinas' description concerning the act of cognition which allows us to understand how a *species intelligibilis* functions, and how it conveys information to the mind concerning the extramental reality. Then, after sketching Aquinas' act of cognition, it surveys some Thomist scholars' opinions of his epistemology. In particular, the discussion centers around authors who regard Aquinas as a direct realist. The second chapter shows how Aquinas' view has been described as representationalist in various ways. First, it examines a group of authors who regard Aquinas as a direct realist, but in their own analyses unintentionally show that the *species intelligibilis* is a representative mental being or that there is an ontological difference between an individual extramental thing's *form* and the *species*, thus supporting a representational view. Following this, it discusses a group of authors who tacitly regard Aquinas as a representationalist, although they remain neutral with regard to any epistemological characterization; their analyses portray Aquinas as a representationalist due to the role which he assigns to mental beings (concepts and *species*). Finally, it surveys the view of a group of authors who explicitly regard Aquinas as a representationalist.

The third chapter presents and defends the main hypothesis of the present study, namely, that the *species intelligibilis* is a representational mental being and that the content of this *species* is the extramental thing's nature conceived as an intelligible structure. The chapter is divided in three parts. First, the notion of representation is reviewed, and a contemporary understanding of it is compared with its use during the

Middle Ages. After examining several notions such as concept, idea, object, intentionality, and representation, it concludes with an explanation of “realist representationalism.” In a second section, the key idea that underlies the *species intelligibilis*, i.e., the notion of likeness, is analyzed. It further explains the various types of *form* within Aquinas’ ontology of the *species* in order to identify the sense in which cognitive mental beings (*species* and images) are to be understood. Likewise, an analysis of *form* helps to make clear the content of representative mental beings, the extramental thing’s *form* or nature. Finally, accounts of abstraction, and of essence as intelligible structure, are added, Aquinas’ epistemological representationalism is justified, and an explanation of how representative acts of cognition take place is offered. In the fourth chapter, as a final point, some objections to the view of Aquinas as a realist representationalist in epistemology are discussed. These objections are concerned with whether or not it is plausible to understand Aquinas as a representationalist.

Chapter I

The Traditional View: Aquinas' Direct Realism

This chapter begins with a short account of Aquinas' description concerning the act of cognition. It will allow us to understand how the *species intelligibilis* functions, and how it conveys information to the mind concerning the extramental reality. Then, after sketching Aquinas' act of cognition, we survey some Aquinas scholars' opinions of his epistemology. In particular, the discussion will center around authors who regard Aquinas as a direct realist. This view is dubbed the "traditional view" because it describes Aquinas as a direct realist in epistemology. We argue, however, that it does not have enough support, and that there are sufficient grounds for the view that the *species intelligibilis* is a representative mental entity.

1.1 Aquinas' Account of Cognition: The Problem of Representation

Aquinas' account of cognition is complex but generally consistent. He inherited his realist perspective from Aristotle: extramental things are hylomorphic entities, composed of *form* and matter.¹ When a hylomorphic sentient knower perceives a thing, he abstracts the *form* from it, in order to grasp what the known thing is (the *form* that is abstracted could be either a substantial or accidental feature of the extramental thing). Following Aristotle, Aquinas believes that knowledge is universal, and thus the knowledge of extramental reality consists of the knowledge of essences; it is never about individual composites themselves, despite the fact that it starts from their cognition.

An initial problem is raised by the fact that there is a gap between sensible composites and the immaterial perceptions of their essences. What capability does the knower's own hylomorphic substance have to do in order to perform such an operation? When it receives a substantial (or accidental) *form* of the thing that is known, does it receive something physical modification that later is transformed into an immaterial mental being? Aristotle himself addressed this first problem in *De Anima* (II, 417a3-412b28). He made a subtle distinction between two different meanings of sensible cognition: one is potential and the other actual. He explained this distinction by the following analogy: potential cognition is like the person who first acquires a word such as 'euphemism;' whereas actual cognition is like a person who already knows this word and then remembers it in order to use it. Hence, the word 'euphemism' is *in actuality* in the

¹ The term 'thing' will be used to refer to any individual sensible hylomorphic extramental entity. This dissertation deals only with representation during "normal" cases of cognition, i.e., a cognition of sensible extramental things. Knowledge of spiritual, imaginary, and other non-sensible beings are special cases of representation. Besides, we will not use the term 'object' in order to refer to extramental things, although many authors usually do. (See below chap III, sec. 3.1.4 for an explanation of why this is not accurate)

educated person's mind already. Analogously, the first meaning of sensible cognition implies dependence upon the extramental thing (where it makes a sensible impression in the knower's sensory organ) in order to "be activated." The activation of sense reception depends on an innate capacity to grasp the external world in an immaterial and intelligible way:²

In the case of what is to possess sense, the first transition is due to the action of the male parent and takes place before birth so that at birth the living thing is, in respect of sensation, at the stage which corresponds to the possession of knowledge. Actual sensation corresponds to the stage of the exercise of knowledge. But between the two cases compared there is a difference; the objects that excite the sensory powers to activity, the seen, the heard, &c., are outside. The ground of this difference is that what actual sensation apprehends is individuals, while what knowledge apprehends is universals, and these are in a sense within the soul itself. That is why a man can think when he wants to but his sensation does not depend upon himself—a sensible object must be there. A similar statement must be made about our knowledge of what is sensible—on the same ground, viz. that the sensible objects are individual and external. (*DA* II 417b29-418a6)

This view immediately leads to the conclusion that acquired sensible knowledge is not sensible at all (or not physically as expected from the use of sensorial organs). It is an immaterial perception of the soul; each of the senses receives "into itself the sensible forms of things without the matter."³ The cognition of an extramental thing is the cognition of its abstracted *form*, either substantial or accidental, being subject to whether the essence or a feature of a thing is grasped. How does the soul receive the extramental thing's *form*? Does the individual *form* pass into the soul? Is it the same *form* or is there

² It is worth mentioning that the emphasis of the comparison must be placed on the immaterial capacity of performing an act, not on an innate storage of *forms*. What Aristotle means is that the production of the abstracted *form* by the soul is as natural as remembering something: a *formal* (or efficient) causation it is not necessary in order to receive the extramental abstracted *form* of a known thing.

³ Quotes cont.: "...in the way in which a piece of wax takes on the impress of a signet ring without the iron or gold; what produces the impression is a signet of bronze or gold, but not qua bronze or gold: in a similar way the sense is affected by what is coloured or flavoured or sounding not insofar as each is what it is, but insofar as it is of such and such a sort and according to its form." *DA* II 424a17-23.

some other mental entity that carries the *form*? What kind of immaterial entity transmits cognition and does not *inform* the soul? Aristotle did not elaborate on whether the acquired information is *communicated*, received, or stored by a different mental entity;⁴ he treats all the information received by the soul as an abstracted *form*. It may be enough for Aristotle or an Aristotelian philosopher to say that whatever is in the mind is the *form* without matter. Yet, Aristotle did not provide any explanation of how *forms* can exist without matter.⁴ Later, he developed a notion of concepts and their production by means of the relation between active and passive intellects.

Following a medieval tradition concerning the existence and function of the soul, the epistemology of Aquinas is actually an expansion of Aristotelian psychology which goes deeper into the cognitive act. Consequently, Aquinas calls the information received about an extramental thing the '*species*.'

Since Aristotle did not allow that forms of natural things exist apart from matter, and as forms existing in matter are not actually intelligible; it follows that the natures of forms of the sensible things which we understand are not actually intelligible... We must therefore assign on the part of the intellect some power to make things actually intelligible, by abstraction of the species from material conditions. *ST* 1a, 79, 3c

Does '*species*' stand here for the Aristotelian '*form*'? The thesis to be defended in the current dissertation holds that, according to Aquinas what the knower apprehends in the act of knowledge is something ontologically different from the individual *form* of a composite (essentially and epistemologically, however, it is the same). Thus, a hylomorphic thing is composed by matter and a causal *form*, and by extramental thing's *form* it must be understood the concrete essence in its natural mode of being of *this*

⁴ For *communication*, see below n. 49; for Aristotle on immaterial *forms*, see chap. III, sec. 3.2.2.1.

individual sensible thing.⁵ Consequently, Aquinas habitually switches the term “*form*” to “*species*” or “likeness”.⁶ In this way, substantial and accidental *forms* of extramental things are distinguished from what is grasped by the senses and, later, by the intellect.

It is worth mentioning that, according to Aquinas, the extramental thing’s causal *form* is not the same as the thing’s essence. The causal *form* of extramental things is part of the essence of a composite, which is the mode in which essence exists, *formally* causing the individual (the other mode in which essence exists is the universal in the mind). This is why Edwards emphasizes the fact that ‘*form*’ is an equivocal term:

The form as intelligible structure remains one and the same, however, despite the individuating conditions. (It is perhaps the ambiguity of ‘form’ that is Aquinas’ most serious problem—forms as bearers of existence must be individuated; forms as intelligible structures, natures as such, need not be.) (Realism 100)

It is important to stress that *species* cannot be equated to *form* in any of these senses. As quiddity, *form* is equivalent to essence. Aquinas refers to this *form* as the “*form* of the whole.” As a causal principle of the extramental thing, *form* causes the composite to be that individual thing. This is what Aquinas called the “*form* of the part.”⁷

⁵ For a difference between causal and individual *forms*, as well as the difference between the individual essence and the universal knowable quiddity, see chap. III, sec. 3.2.2.2.

⁶ Pasnau Theories 14-15, 33. Cf. also Aquinas, *ST* 1a, 85, 2c (quoted below) and *InDA*, II 14, 418. For a definition, see below chap. III, sec. 3.2.1, p. 149-150, and n. 48. Bazan compares him with Averröes terminology: “Averroes, however, does not have the notion of *species*. He works only on the basis of the diverse states of the intentional form, of the universal essence of things.” (432) Cf. also Black: “For intelligible species are entirely absent from Avicennian cognitive psychology, and indeed from the Arabian Aristotelian tradition as a whole.” (66) Peifer agrees on the distinction for epistemological purposes, but he attributes the distinction to Aristotle as well. (63) Aristotle uses the term *ὁμοιότητα*, which means “likeness,” but he always refers to the *form* without matter in the soul. According to Andriopoulos (125-6), the use of this term is a sign of representation by a mental *form*, but of the whole extramental thing—not just the extramental thing’s *form*. He also emphasizes the different modes of beings as a proof for representationalism. However, if we regard these mental *forms* as *ἐνέργεια*, as Esfeld does (328), there is reasonable support for strong identity between mental *forms* and extramental thing’s *forms*, which implies direct representationalism: the extramental thing’s *form* is what exists in the mind.

⁷ In *De Ente* Aquinas says: “The essence of a composite substance accordingly differs from that of a simple substance because the essence of a composite substance is not only form but embraces both form and

Form considered as essence corresponds to the information received by the *species*:

“once we abstract from existence, there is simply no difference between the form or essence of the object known and the form of nature received by the intellect”⁸ This is why *form* is conveyed by the *species intelligibilis*, but the former is the essence, whereas the latter is a mental entity. ‘*Form*,’ ‘essence,’ ‘nature,’ and ‘quiddity’ are coextensive, although they differ in meaning.⁹ Here we are interested in both the being responsible for information (*species*) and the information itself (essence), but we distinguish them. The information itself, the *form* (of the whole), quiddity or essence is what makes possible the metaphysical and epistemic realism: “The nature or form as such is then the link between the world and the intellect in Aquinas’ epistemological realism, and he can refer both to the concept of a nature and to the nature in the object indifferently as *ratio* or intelligible structure.”¹⁰

Likewise, *form* as the principle of the composite being corresponds to the *formal* cause. It is responsible for instantiating the quiddity of the concrete individual, but not for

matter, whereas the essence of a simple substance is form alone ... [thus] we can signify the essence of a composite substance as a whole or as a part. This happens because of the designation of matter, as has been said.” (4, 4) “It is clear, then, that the essence of man is signified by the two terms ‘man’ and ‘humanity’, but in different ways, as we have said. The term ‘man’ expresses it as a whole, because it does not prescind from the designation of matter but contains it implicitly and indistinctly, as we said the genus contains the difference. That is why the term ‘man’ can be predicated of individuals. But the term ‘humanity’ signifies the essence of man as a part, because its meaning includes only what belongs to man as man, prescinding from all designation of matter.” (2, 13) Also, species is differentiated from the individual thing’s principles: “Our intellect abstracts the intelligible species from the individualizing principles; hence the intelligible species in our intellect cannot be the likeness of the individual principles; and on that account our intellect does not know the singular.” (*ST* 1a 14, 11, 1 *ad* 1) See below chap. III, sec. 3.2.2.2.

⁸ Edwards Realism 82-3. Also: “...The intellect receives absolute forms or natures, according to Aquinas. And the absolute form or nature as such as it exists in individuals, and the absolute form or nature as it exists in the knowing intellect, are identical in a sense. That is, they are identical not with respect to existence but with respect to intelligible structure.” (82) Cf. also Maurer in note 11.

⁹ Edwards Aquinas 155-6. Gracia concurs with Edwards’ previous quote (Cutting 28) and he adds that they are beings extensionally equivalent. They are “considered to be extensionally, but not intensionally, equivalent to quiddity or essence (Quiddity)

¹⁰ Edwards 83. For instantiability see chap. III, pp. 155, especially n. 70.

transmitting information of the external senses.¹¹ The latter is the function of the extramental thing's *form* considered as essence. The individual thing's *form*, as we saw above, affects the external senses, but the act of cognition is an immanent act, which uses the information received by the contact with the extramental thing's *form* considered as essence.¹² The way in which the individual extramental thing's *form* affects the senses, is analogous to the way in which it *informs* any other sensible being (like fire heating up the stove). Thus, one thing is the information or data received, and another is the sensible-physical act of *informing* the senses.¹³ Concerning the actualization or *information* that takes place during cognition, Aquinas distinguished two different ways in which a change (*immutatio*) is produced:

Immutation is of two kinds, one natural, the other spiritual. Natural immutation takes place by the form of the immuter being received according to its natural existence, into the thing immuted, as heat is received into the thing heated. Whereas spiritual immutation takes place by the form of the immuter being received, according to a spiritual mode of existence, into the thing immuted, as the form of color is received into the pupil which does not thereby become colored. (*ST* 1a 78, 3c)

These different types of changes correspond to two ways in which *forms* operate. In its natural existence, as the extramental thing's causal *form*, this *form* is also regarded as an efficient cause. However, a mental *form* such as the *species intelligibilis* only *instrumentally* causes cognition, in a "spiritual" way: it does not efficiently "change" the intellect into a being identical to the thing that is known, but it makes the intellect

¹¹ "Form is something that something has and has no being except on that condition. Hence, its occurrence it is always dependent on a particular thing." (Hamlyn, Aristotle 63) "Both form and essence are in their own ways principle of *esse*. They are principles *quo est*. Only the form, however, is the cause of *esse*, for it gives *esse* to matter as a formal cause." (Maurer, 174, n. 66)

¹² See below pp. 7-9: knowledge is a spiritual and immanent act of the soul. "The act of the intellect is an immanent act because knowledge begins and is terminated within the knower." Preston 17; cf. *SCG* I 53.

¹³ '*Information*,' '*informative*,' and '*informed*' are used in italics to refer to the activity of a *form*. When these term are use in normal characters, they refer to 'data.'

formally identical with the extramental thing's essence. On these different types of causation, Lonergan offers a thorough analysis, although from the point of view of the inner word:¹⁴

“After explaining Aristotle's concept of action and passion, he goes on to give his own quite different and quite universal definitions of the predicament of action and passion. As causal efficiency does not require external matter and movement, so also it need not go forth: there is a ‘processio operati’ of the inner word within the intellect. On the one hand, *actio* that remains in the agent does not involve efficient causality inasmuch as it proceeds from form, *species*, or informed potency; for that procession is not ‘processio operati’ but ‘processio operationis’; as we have just seen, operation is more perfect than form, and only an instrument is less perfect than its effect. The idea that efficient causality occurs in this type of *actio* has, as I fear, little more basis than a failure to distinguish between the two ways in which Aquinas defined his *potentia activa*.”¹⁵

Pasnau also explains this difference on causation with a scheme, from the point of view of the relation between agent and patient. (Theories 126-9) Thus, in *Quodlibet* 8,2,1 Aquinas distinguishes two types of agents and patients:

- [A1] an agent that of itself suffices for bringing its form into the patient
- [A2] an agent that of itself suffices for bringing its form into a patient only if another agent intervenes
- [P1] a patient that in no respect cooperates with the agent
- [P2] a patient that does cooperate with the agent

Accordingly, sensation, (as any other physical *informative* act) is a combination of [A1] and [P1], whereas inner senses (spiritual sensible cognition) involves [A1] [P2]. Alternatively, intellectual cognition is of the [A2] [P2] type, in which “phantasms are merely ‘instrumental agents’ in the process, whereas the agent intellect is the ‘principal

¹⁴ Inner or mental word is defined as a product, an effect, and an expression of the cognitional content of the act of understanding. Therefore, it is considered the termination of the simple understanding. (22-24) Stump also equates ‘internal word’ with ‘intellect intellection’ and ‘concept’: “the act of intellection isn’t complete until the intellect has used the intelligible species to form and intention.” (Aquinas’s 294)

¹⁵ (132-3) Lonergan defines these terms as follows: *processio operati* is a procession of something produced by an operation; *processio operationis* is the emergence of a perfection from (and in) what is perfected. *Potentia activa* is the principle of an action, opposed to *potentia passiva*, which is its complement: reception of the action. Cf. Also Bourke Operations 84-85.

agent.’ These agents operate in tandem...”(129) Taking into account the above-explained differences between *species intelligibilis* and extramental thing’s *form*, it should be obvious that they are two ontologically distinctive beings.

It must be restated that *species* is a kind of *form*: a “mental” *form*. The term *species* is epistemologically defined in an Thomist lexicon as “a form of knowledge, a representation of an object in the faculty of knowledge...” (Deferrari 1041) In general, the term implies the likeness of an extramental thing. In which sense is *species* a likeness or representation of the extramental thing? For one thing, it is neither a copy of the thing (otherwise we would have another instantiation of the thing), nor an image of the thing. Knowledge is acquired by abstraction, so what the mind acquires is either the extramental thing’s essence or an accidental essence (of the accidental being inhered in the thing). Can it be said that *species* is the copy of the individual extramental thing’s *form* (or any accidental *form*)? No, because what is known, is known in an immaterial way, intentionally, and is not received through a physical causation of the extramental thing. Thus, to know an angel does not imply to have (or to become) the angel’s *form*, but to receive a *species* representative of the angel’s essence:

... It must be said that the intelligible species which is in the intellect of the understanding angel is different from the understood angel, not in the way of “something abstracted from the matter” and “something concreted of matter”, but as an intentional being differs from a being which has an established existence in nature, as the species of color in the eye differs from the color which is in a wall. (*QDSC* I, 11, 27)

The *species* Aquinas refers to here is one of the three *species* that account for cognition. This first is called *species in medio*, and this is what externally sets off cognition when the cognized extramental thing is not in direct contact with the senses, as in hearing or sight. Aquinas regards cognition as an intentional transmission of

knowledge via immaterial *species*. The external senses receive an external stimulus, but this only triggers the reception of *species*.¹⁶ As seen above, cognition is an immaterial act, but also an immanent one: it takes place within the mind of the knower and has no effect outside of it, nor do extramental things directly affect it:

Our intellect does not know itself except by the species whereby it is made actual in intelligible being; for which reason Aristotle [*DA* III, 4, 429a18] says that *it is knowable in the same way as other things*, namely by species derived from phantasms, as by their proper forms. (*SCG* II, 98)

It is necessary that that which is understood be in the knower and one with him. (*QDP* 9, 5)

The operation of the intellect is completed by the thing understood being in the intellectual subject. (*ST* 2a2ae 23, 6, *ad* 1)

The other two *species* are called ‘sensible’ and ‘intelligible.’ They arrive on the scene when the cognition of a sensible extramental thing is activated by the knower’s soul. Once the sensorial organs receive the external information, a sensible *species* is created, but it is no longer a copy of an individual extramental thing’s *form* “suspended” in the medium, which is unable to be perceived by a knower. Like Aristotle, Aquinas regards the sensible *species* as mental *form*, an accident of the soul:

An intelligible species that is accessory to the essence of the intellect in which it is, has an accidental being: for which reason our knowledge is reckoned among the accidents. (*SCG* I 46)

...The organs of the soul can be changed in two ways. First, by a spiritual change, in respect of which the organ receives an “intention” of the object... But the organs are receptive of another and natural change, which

¹⁶ “...What is spiritual in their exercise is always accompanied by a material change. I mean by ‘material change’ what happens when a quality is received by a subject according to the *material* mode of the subject’s own existence, as e.g. when anything is cooled, or heated, or moved about in space; whereas by a ‘spiritual change’ I mean, here, what happens when the likeness of an object is received in the sense-organ, or in the medium between object and organ, *as a form causing knowledge*, and not merely as a form in matter. For there is a difference between the mode of being which a sensible form has in the senses and that which it has in the thing sensed.” *InDA* II 14, 418. Pasnau, however, thinks that Aquinas holds a sensible or materialist theory of *species*. (Theories 42)

affects their natural disposition; for instance, when they become hot or cold, or undergo some similar change (*ST* 1a2ae 22, 2 *ad* 3)

Cognition is an act by which the soul receives an abstracted essence (the *form* of the whole) of the extramental thing (or the essence of any inherent accident).¹⁷ This act is immanent because the sensible *species* is not received from outside (nor it is *informed* or produced by the individual extramental thing's *form*), but it is actualized by the soul itself. A sensible *species* is concerned with individual features (*InDA* II 12, 375) and its information is related to their material conditions (*ST* 1a 84, 1c), so the abstracted *form*, received as information, is not yet the essence of the extramental thing (or an essence of any of its accidents). What is received at this stage of knowledge is “raw” data, which is not only specific about the individual composite but is also a fragment of the extramental thing.¹⁸ It is a mistake to regard a sensible *species* as a copy or image of the extramental thing, or of any of its features. In fact, the senses cannot give an account of whatever they perceive, because this is an act that is performed by the intellect: “to be cognizant of the natures of sensible qualities does not pertain to the senses, but to the intellect.” (*ST* 1a, 78, 3c)

Thus, following Aristotle, Aquinas makes clear the need of the internal senses to reconstruct the extramental thing as an image or *phantasm*. The two internal senses that are most relevant for our study are the *sensus communis* and the imagination. The *sensus*

¹⁷ “The sensible form is conditioned differently in the thing which is external to the soul, and in the senses which receive the forms of sensible things without receiving matter, such as the color of gold without receiving gold.” *ST* 1a 84, 1c

¹⁸ “An animal through the sensitive soul must not only receive the species of sensible things, when it is actually affected by them, but it must also retain and preserve them. Now to receive and retain are, in corporeal things, reduced to diverse principles; for most things are apt to receive, but retain with difficulty, while it is the reverse with dry things. Wherefore, since the sensitive power is the act of a corporeal organ, it follows that the power which receives the species of sensible things must be distinct from the power which preserves them.” *ST* 1a 78, 4c

communis is in charge of unifying all sensations that are individual and specific.¹⁹ This is, however, a passive faculty which only gathers sensible information.²⁰ The imagination, on the contrary, is an active faculty which creates an image of an extramental thing, combining the information received.²¹ The imagination presents an apple to the mind as a thing that is red, smooth, sweet, etc.²² It is evident that the imaginative faculty is totally tied to the senses, and only works at the level of the individual.²³ Besides, it is not possible for the intellect, which is concerned with the essences of things, to focus on individual extramental things without the help of the imaginative faculty:

Now sense, imagination and the other powers belonging to the sensitive part, make use of a corporeal organ. Wherefore it is clear that for the intellect to understand actually, not only when it acquires fresh knowledge, but also when it applies knowledge already acquired, there is need for the act of the imagination and of the other powers... Anyone can experience this of himself, that when he tries to understand something, he forms certain phantasms to serve him by way of examples, in which as it were he examines what he is desirous of understanding. For this reason it is that when we wish to help someone to understand something, we lay examples before him, from which he forms phantasms for the purpose of understanding. (*ST* Ia 84, 7c)

¹⁹ "It is a common sensitive principle, aware of several objects at once because it terminates several organically distinct sensations; and as such its functions are separate. But just because it is one in itself it discerns the difference between these sensations." *InDA* III 3, 610

²⁰ "The common sense receives its object in a still nobler way because it lies at the very root of sensitivity, where this power has its point of greatest unity. Yet we must not suppose that the common sense appropriates *actively* the impressions received in the sense-organs; all sensitive potencies are passive; and no potency can be both active and passive." *InDA* III 3, 612

²¹ "...For the reception of sensible forms, the "proper sense" and the "common sense" are appointed... But for the retention and preservation of these forms, the "phantasy" or "imagination" is appointed; which are the same, for phantasy or imagination is as it were a storehouse of forms received through the senses." *ST* Ia 78, 4c

²² The imaginative faculty not only provides the actual image of an extramental being, but also pure "imaginings," i.e., false being produced by combinations from real sensations, such as Pegasus. The scope of the present study –knowledge of the extramental things as representations– excludes these kinds of products of the imaginative faculty.

²³ "Imagination is a certain movement caused by the senses in their act of sensing. It cannot exist without sensation, or in insentient beings. If there is any movement caused by actual sensation, it must resemble sensation, and imagining is the only activity of this kind." *InDA* III 6, 659.

Accordingly, the image or phantasm presents to the mind particular information of an extramental thing. But this is not enough:²⁴ knowledge is about essences, and the mind needs to “*form*” its own intelligible *species* which can bear essences of extramental things (or any essence of their accidents).²⁵ These abstractive mental operations, by reducing the materiality and particularity of the information presented by the phantasm, provide the information needed in order to acquire scientific knowledge.²⁶ Consequently, the *species intelligibilis* is abstracted from the image due to the action of the agent intellect and impressed on the passive intellect, as Aristotle explained. The act of knowledge continues, however, with the formation of concepts and mental words, and later on with judgments.²⁷

The problem raised by the existence of the *species intelligibilis* is as follows: what is it that we understand, the *species intelligibilis* or the extramental thing? Moreover, there is another question: which one accounts for our knowledge? Aquinas both states and answers these questions in the *Summa Theologiae*:

Whether the intelligible species abstracted from the phantasm is related to our intellect as that which is understood... It must be said that the intelligible species is related to the intellect as that by which it understands: which is proved thus. There is a twofold action (*Metaph.* ix, Did. viii, 8), one which remains in the agent; for instance, to see and to understand; and another which passes into an external object; for instance, to heat and to cut; and each of these actions proceeds in virtue of some form. And as the form from which proceeds an act tending to something

²⁴ “Therefore the object of every sensitive power is a form as existing in corporeal matter. And since such matter is the principle of individuality, therefore every power of the sensitive part can only have knowledge of the individual.” *ST* 1a, 85, 1c

²⁵ “But the more immaterially a thing receives the form of the thing known, the more perfect is its knowledge. Therefore the intellect which abstracts the species not only from matter, but also from the individuating conditions of matter, has more perfect knowledge than the senses, which receive the form of the thing known, without matter indeed, but subject to material conditions.” *ST* 1a, 84, 2c

²⁶ “Although the operation of the intellect has its origin in the senses: yet, in the thing apprehended through the senses, the intellect knows many things which the senses cannot perceive.” *ST* 1a, 78, 4 *ad* 4

²⁷ We are only interested in what is called the first apprehension, not in judgments (see below chap. III, sec. 3.3.1, p. 179-180); see this section concerning abstraction in Aquinas.

external is the likeness of the object of the action, as heat in the heater is a likeness of the thing heated; so the form from which proceeds an action remaining in the agent is the likeness of the object. Hence that by which the sight sees is the likeness of the visible thing; and the likeness of the thing understood, that is, the intelligible species, is the form by which the intellect understands. But since the intellect reflects upon itself, by such reflection it understands both its own act of intelligence, and the species by which it understands. Thus the intelligible species is that which is understood secondarily; but that which is primarily understood is the object, of which the species is the likeness. This also appears from the opinion of the ancient philosophers, who said that "like is known by like." For they said that the soul knows the earth outside itself, by the earth within itself; and so of the rest. If, therefore, we take the species of the earth instead of the earth, according to Aristotle (*De Anima* iii, 8), who says "that a stone is not in the soul, but only the likeness of the stone"; it follows that the soul knows external things by means of its intelligible species. (*ST* 1a, 85, 2c)

It is important to stress that, despite the fact that the *species intelligibilis* is called the likeness of the extramental thing, what is known is the essence of the thing, which stands in the mind as a universal. The image or phantasm is the likeness of the individual extramental thing, but knowledge of this is not what Aquinas regards as universal knowledge or scientific.

The above paragraph, one of the most quoted fragments used to prove Aquinas' metaphysical realism, states that knowledge is about the extramental thing "by means of its intelligible *species*."²⁸ There should be no doubt left that Aquinas meant knowledge of the extramental world: thus, he is a realist in epistemology as well. However, the problem we are concerned with is not whether he is an epistemological realist but whether his position can be actually described as a direct or an indirect realism.²⁹ The problem is not

²⁸ According to Stump, "he assumes that there is an external world around us and that it has certain features independently of the operation of any created intellect, so that it is up to our minds to discover truths about the world, rather than simply inventing or creating them." (Aquinas 144)

²⁹ Aquinas' view of cognition is, in fact, based on an ontological viewpoint. And he primarily wants to state that the knowledge of extramental essence is possible (and from sensible beings, *ad versus* Platonic philosophers.) Cf. for instance Macdonald 160, Steenberghen 65, and Doig 205 among others.

whether we can access extramental reality and perceive it as it is; it is obvious that Aquinas is a realist in this sense. The problem is, rather, *how* we access it. When we ask, “which entity accounts for our knowledge?” we are not concerned with the content of knowledge, but with the way in which knowledge is presented to the mind. Aquinas certainly says that it is done through *species intelligibilis*. This is the question of this dissertation: is knowledge of extramental things direct or indirect? And, is Aquinas representationalist or direct realist? In order to answer it, we survey the opinions of various authors, some supporting a traditional view (which state that Aquinas is a direct realist), some arguing that Aquinas is a representationalist, and some in between, who do not explicitly address the topic but implicitly provide grounds for a representationalist view. We begin by explaining what it means to be either direct or indirect realist.

1.2 The Traditional View of Representation

The traditional view of representation with respect to Aquinas’ epistemology denies that it harbors any kind of representative mental entities. This view regards Aquinas as a direct realist, which may straightforwardly be defined as someone who believes that whatever exists outside one’s mind can be known as it is.³⁰ Direct realism has been frequently understood as *naïve realism*. In epistemology, *naïve realism* has been called a “...theory [which] holds that our ordinary perception of physical objects is direct, unmediated by awareness of subjective entities, and that, in normal perceptual conditions, these objects have the features they appear to have.” (Dretske, Naïve)

³⁰ The mental world can be seen as full of “objects” as well, but this presents a new set of problems that are beyond the scope of the present dissertation. We are only concerned with extramental reality.

A realist view acknowledges the biological means by which we know extramental things in our minds. What we know is the essence (or some features) of a thing: the thing is not present in the mind, only some sort of knowable mental being is present in it. But naïve realism pays no attention to this difference between extramental and mental beings. Thus, if naïve realism means a view in which one naïvely believes that whatever one knows is exactly as what is in reality, there is no such “naïve view” at all. There is simply the layman’s common sense view of knowledge. Gilson notes that as long as a philosopher casts doubts on knowledge and offers an explanation of the act of knowledge, there exists a direct philosophical realism, and no naïve approach.³¹

In conclusion, a direct philosophical realism is a viewpoint whereby the knower can grasp, without any epistemological mediation, the features of an extramental thing. It holds that the extramental thing is known immediately via concepts or mental beings, which are only biological or mechanical means to grasp the essence and/or features of extramental things.³² And, based on the text cited earlier (pp. 13-14), many authors regard Aquinas as denying representationalism. Potter comments on this text:

The point to look for in this piece is that in knowing, we do not know ideas, but things by means of ideas “Ideas” in this sense are sometimes called pure or “formal” signs. Scholastic philosophers have often referred to such a formal sign as a principle by which something is known

³¹ Thomist 169. Cf. also Hirst 78. Bonjour, conversely, identifies direct and naïve realisms: e.g. “The view once disparaged as ‘naïve realism,’ but nowadays usually referred to as *direct realism*” (sec. 2.3) and “...Epistemological implications have at least tended to be in the direction of naïve—or direct—realism.” (sec. 1.4)

³² “The direct realist need not deny (though some have seemed to) that sensory experience somehow involves the various qualities, such as complicated patterns of shape and color, that sense-datum or adverbial views have spoken of, nor even that the perceiver is in *some* way aware or conscious of these. His point is that whatever may be said about these other matters, from an intuitive standpoint it is material objects and nothing else that are “directly before my mind” — and that any view that denies this obvious truth is simply mistaken about the facts.” (Bonjour 2.3) “Although this theory bears the name ‘naïve’, and is often said to be the view of the person on the street, it need not deny or conflict with scientific accounts of perception. It need only deny that one’s perceptual awareness of objective properties involves an awareness of the properties of subjective (mental) intermediaries.” (Dretske, Naïve) Cf. also Hirst 78-80.

(*principium quo*) in the case of sensation, or as a principle in which something is known (*principium in quo*) in the case of intellection, but never as *that which* is known in either case. If we become aware of these formal signs or ideas, it is only indirectly and by reflection.³³

This is the usual argument given by authors who defend the traditional view. The justification is that Aquinas is not a modern idealist (like Descartes or Locke), because he denied representative mental beings. Traditionally, representationalism is defined as the view in which the knower is

directly, and most immediately, aware of subjective representations (sense-data, percepts, sensations) of the external world. Our knowledge of objective (mind-independent) reality is, thus, derived from (based on) knowledge of facts about one's own subjective experience.³⁴

Nevertheless, a representationalist does not necessarily claim that an "idea" or mental being is epistemologically different from the extramental thing; it only claims that the object of knowledge is ontologically different from the extramental thing, and that the object is known indirectly through a mental representation. This position has been called a "realist representation" in order to distinguish it from the traditional modernist "representative realism" of Descartes and Locke.³⁵ Accordingly, there seems to be no

³³ 230-231. What Potter refers to here as "ideas" are *species* and concepts in Aquinas terminology. See chap. III, sec. 3.1.2. We will avoid the term 'ideas' for human thoughts. We use 'concepts' instead.

³⁴ Dretske, *Representative* 771. Also: "The indirect realist agrees that the coffee cup exists independently of me. However, through perception I do not directly engage with this cup; there is a perceptual intermediary that comes between it and me. Ordinarily I see myself via an image in a mirror, or a football match via an image on the TV screen. The indirect realist claim is that all perception is mediated in something like this way. When looking at an everyday object it is not that object that we directly see, but rather, a perceptual intermediary." (O'Brien)

³⁵ Pierre Grenon defines this view, (3-4) and we will see it in depth on chap. III., sec. 3.1.6. On standard representative realism: "Reflection on the nature of our perceptual experience led Descartes and Locke, among others, to argue that even when we are perceiving we are directly aware of ideas, not physical objects." (Brown "Idea") Locke's theory of ideas fits this latter view: "[Idea] serves best to stand for whatsoever is the object of the understanding when a man thinks; I have used it to express whatever is meant by phantasm, notion, species, or whatever it is which the mind can be employed about in thinking; and I could not avoid frequently using it. I presume it will be easily granted me, that there are such ideas in men's minds; every one is conscious of them in himself, and men's words and actions will satisfy him that they are in others." (*Essay* 1, 1, 8, p. 48) Cf. also Crimmins: "The view that mental representations involve

difference between direct realism and realist representationalism from an ontological point of view. Both agree that the object of knowledge is a mental being and both agree that the known thing is an extramental thing.³⁶ The difference occurs in the epistemological account. Both views differ in the way the object is known, either mediately or immediately.³⁷ Realist views hold that the extramental thing is known immediately via concepts or mental beings, which are only biological or mechanical means to grasp the essence and/or features of extramental things.³⁸ Conversely, representationalist views support the mediated causal inference from represented features to knowledge of extramental things.³⁹

It is understood then that for realist representationalism we can access extramental things as much as direct realism claims. It is also obvious that Aquinas, along with his contemporaries, did not use these distinctions. Most current Aquinas scholars do not use them either, and that is one of the reasons that they would not label Aquinas' epistemology as representationalism. Aquinas' text was written from a metaphysical point of view and, from it, the defenders of the traditional view derived the epistemological conclusion that Aquinas was a direct realist. These authors tend to ignore

an organized system of mental entities is familiar from theories of concepts and ideas, and has been given new support by advocates of *representationalism*." (Representation 793, his emphasis)

³⁶ "...It does not seem necessary for strictly *epistemological* purposes to decide between these two views [direct and representative realism]. The reason is that while they give different accounts of what ultimately going on in a situation of immediate experience, they make no difference with respect to the experienced content of that experience. And it is on that experienced content, not on further metaphysical account of it, that the justificatory power, if any, of such experience depends." (Bonjour sec. 1.4)

³⁷ "... The distinction ... is explained more fully in terms of what is 'immediately' perceived than 'mediately' perceived... Since the sense 'make no inferences'... the object of immediate perception are all occurrences of sensible qualities, such as colours, shapes and sounds; and these are physical existents, and not ideas or any sort mental intermediaries at all..." (Carrier 105)

³⁸ See above p. 16, and n. 32 as well.

³⁹ "Perceiving an object located in [the] external world necessarily involves causal interacting with this object ...[but] the information acquired in perceiving an object is indirect; it is information most immediately about the perceptual experience caused in us by the object, and only derivatively about the object itself." (Jackson 445) We need to distinguish, however, between subconscious epistemological inferences and conscious psychological inferences (modern awareness). See below chap. II, n. 48.

the fact that the information received by the mind is conveyed by *species*, and not from direct apprehension of an extramental thing's causal *form* (or any of its accidental *forms*).

With regard to representationalism or direct realism, the state of Aquinas' study on cognition is not promising. Past and current scholars assume that Aquinas is in every respect a realist. Dewan, Kenny, Owens, Gilson, Moreau, and many others have not entertained the possibility of any kind of mediation in knowledge for Aquinas. Other authors such as Elders or Lonergan do not even discuss the issue, despite the fact that they give a detailed account of both intellectual and cognitive act; the epistemological account is displaced by other topics, like metaphysics (such in Kretzmann's *Philosophy*) or logic (McDonald). In most cases, in order to determine the opinion of contemporary scholars, it is necessary to reconstruct them, because they do not address this issue. There are, however, some authors that explicitly or implicitly regard Aquinas as a representationalist. We will discuss some of these views in the second chapter of this study.

Let us now proceed with a briefly survey of authors who are not Aquinas specialists, but who, nevertheless, offer comments on his epistemology. Then we turn to authors who do not specifically work on Aquinas' cognition. In both cases we see this line of thought, i.e., the traditional view, and the same unwarranted view, that metaphysical realism implies direct realism. Finally, in the last subsection of this chapter, we review some epistemologists who analyze Aquinas' act of knowledge and hold the traditional view.

1.2.1 Opinions of Non-Experts on Aquinas

In this section we briefly survey some authors who are not expert in Thomist epistemology, but they have said something about Aquinas which has been generally influenced by the traditional view of him as a direct realist. These authors do not offer much support for their views, but their analyses follow the same presupposition: metaphysical realism implies epistemic realism, which is understood as epistemological *direct* realism.

It is worth mentioning that Aquinas is usually not listed in articles concerned with the theory of knowledge or in historical accounts of epistemology, while other authors are usually found (such as Lucretius, Ockham or St. Augustine).⁴⁰ In fact, Aquinas is scarcely found in any surveys of readings on epistemology that are historical or broadly compressive.⁴¹ His position is usually regarded as uninteresting because—as Abbagnano states it in his *History of Philosophy* (I, 460)—it replicates the direct realism of Aristotle. And according to Curtis, Aquinas’ teaching in epistemology “has been largely an extension and reconstruction of the thought of Aristotle.” (143) It is not the case that he is not mentioned because of the usual lack of consideration of medieval authors. Authors such as Ockham and Augustine are mentioned because they thought to have original, challenging, interesting, and/or relevant positions.

When Aquinas is listed in these sources, as well as in dictionaries and encyclopedias, we continually find the same approach: Vernon Bourke loosely qualifies

⁴⁰ Cf.: Aune’s *Knowledge of the External World*, Chisholm’s *Theory of Knowledge*, Musgrave’s *Common Sense*, or Yolton’s *Theory of Knowledge*.

⁴¹ Cf.: Cahn’s *Knowledge and Reality*, Canfield’s *Readings in Theory of Knowledge*, Cooper and Sosa’s *Epistemology: The Classic Readings*, or Pojman’s *Theory of Knowledge: Classical and Contemporaries Readings*.

him as realist in his historical article about Thomist epistemology.⁴² Hamlyn, likewise, equates his epistemology with his realist theory of universals (Epistemology 15). Muller, in the *Great Thinkers of the Western World*, explains the process of learning in terms of causal *information* that takes place in physics, on hylomorphic composites (111-112): the same subjective causal *forms* are received by the soul after the act of abstraction (the direct realism is implicit). And Van Steenberghen insists that Aquinas' epistemology is not only a realism, but an "immediate" realism: "Through sensation, the knowing subject is in immediate contact with reality itself without any conscious intermediary... the abstract concept formed from the sensory data are authentic representations, even though not adequate, of the concrete reality."⁴³

In surveys of philosophical history, the situation is not much better. Copleston (II 390-1) and Abbagano (462) regard Aquinas as a direct realist, because the *species* is just the means, not the object, of cognition. Representationalism is completely ruled out as opposed to the knowledge of real things. According to J. Ross:

The "representationalism" of Aquinas belongs only to the conjectured states of the causal stages from physical objects to perception and understanding (and back). But the output of perception is the *presence* of things to animals: hawks see *mice*, by means of representations ("sensible species"), not by seeing representations of mice and somehow "inferring" to the world. The outcome of cognitive psychology for Aquinas is direct realism about animal perception and human truth: namely, what animals, normally, see and hear and taste and touch, is what is real. And most important, when what we think is true, what we know *is* what is so. (157)

Another way of understanding direct realism is by holding that the *species* is an exact copy of the individual *form* of an extramental thing. Accordingly, Brian Davies

⁴² Thomas 426. He does not use the label 'direct realist, but there is no mention of 'representations' in his article.

⁴³ Epistemology 68. It is clear –because of the admission of *species intelligibilis* as representational– that Van Steenberghen confuses metaphysical with epistemological direct realism as well. For another view of immediate realism see Dewan, below p. 41 and ff.

highlights the isomorphism between extramental being and *species* as the basic principle for knowing reality. (652) This position, which corresponds to the metaphysical realism of Aquinas, should not be enough to justify the direct realism interpretation. However, this is precisely what Doig does:

By such explanations and terminology [active and passive intellect, *form*, *species*, potency], Aquinas intends to focus his reflective attention through metaphysical concepts on the sole reality there is in this ordinary act of condition; that is he attends reflectively to the ordinary or direct focusing of attention on the object in front of him, ... even though he speaks now metaphysically, it is the individual reality of that ordinary condition that he knows. (*sic*, 204-5)

In some cases, as in Tranøy's article, there is confusion between a direct realism of the senses and an indirect realism of abstractive intellectual knowledge (109). Current information on the Internet continues to be inaccurate in this sense: Owens and Starkey, in their article for the *Encyclopedia Britannica*, and Joseph Magee, in his *Thomistic Philosophy* web page, classify Aquinas as a direct realist without question.

In conclusion, non-specialized authors follow the pattern set by the traditional view, which has been promoted and preserved by Aquinas scholars. We turn to well known experts on Aquinas, who maintain the traditional view, despite the fact that they have not devoted themselves to the study of cognition.

1.2.2 Opinions of Experts on Aquinas but not on Epistemology

Now we discuss two well-known specialists in Aquinas, Gilson and Owens. Generally speaking these authors have described Aquinas as a direct realist, although in some cases they do not explicitly deny representationalism or argue in favor of direct realism. Nonetheless, their analysis presupposes that metaphysical realism implies the

total identity between *species* and the individual *form* of extramental thing, overlooking the role of the *species* and/or the importance of the intentional existence of the abstracted *form* of the whole or essence.

Etienne Gilson

Gilson has produced a great quantity of works about Aquinas. Although he did not specifically study his epistemology, he has some well-known interpretations on the notion of realism, which adopt a metaphysical point of view.⁴⁴ Gilson is focused on concerns that arise when we apply Cartesian critical philosophy to Aquinas' thought. His comments reveal what he thinks about Thomist epistemology:

...The critique of knowledge is essentially incompatible and irreconcilable with metaphysical realism... There is no middle ground. You must either begin as a realist with being, in which case you will have a knowledge of the being, or begin as a critical idealist with knowledge, in which case you will never come in contact with being. (149)

Gilson opposes realism to criticism, but this implies direct realism in epistemological terms? He arranges his analysis in the field of knowledge starting from an ontological reading,⁴⁵ but, in order to prove that the Thomist method cannot be "critical" (in the Cartesian sense), he denies any possible mental representation or any content in Thomist concepts.

Thus, this is by means of a fundamental fallacy that anyone can claim to reduce classical realism to some sort of "mediatism." Such a position would maintain a whole series of intermediaries intervene between the object and the intellect and that sensibility separates the intellect from beings. (206) Classical realism is based upon the double fact that our knowledge truly attains reality because reality is the cause of our knowledge and that, even if our knowledge is not an intuition, it attains

⁴⁴ He expresses this opinion throughout all his work on epistemology, *Thomist Realism and the critique of knowledge*: "...When a problem concerning beings arises, only metaphysics, not the critique, can offer a solution" (195)

⁴⁵ "In such a realism of knowledge, itself integrated with realist metaphysics..." (201)

reality as it really is because our intellect grasps what is intelligible in reality, thanks to our sensibility. (203)

This opinion is stated in the context of his discussion of critical realism and clearly maintains that there exists a direct apprehension of the essence of extramental things. Despite Gilson's view of classical realism, he acknowledges that we are limited by experience in directly apprehending extramental essences, but this limitation is nonetheless bypassed because of our abstractive capacity.⁴⁶ We can recover the essence of an extramental thing and overcome the gap between immaterial intelligibility and sensible reality. The recognition of this limitation, however, forces Gilson to explain what is in the mind. He is not precisely interested in representation, which he has already ruled out. He is concerned, however, about the fact that we cannot empirically grasp being as such: "On the one hand, quiddities are the natural object of the intellect; on the other hand, essences are unknown to us. This opposition is only apparent." (202) The question that pertains to our study is whether this apprehension, overcome by abstraction, comprises a direct apprehension of the individual *form* of an extramental thing or is an indirect of representation of the thing, an instance of its essence. Gilson describes the situation in a way that resembles Russian nested dolls:

This definition, or quiddity is the essence apprehended by the intellect in the sensible datum, and this is why philosophers substitute the term "quiddity" for "essence." (199) ...The essence by which a being composed of matter and form is said to exist must necessarily include matter and form ...for what causes being, or essence is form. Thus the quiddity which the intellect defines contains the essence which the quiddity defines. The essence, in its turn, contains the form, the cause of being of the existent, and the act by which form causes something to exist is the very heart of reality. (200)

⁴⁶ "Realist abstraction is an apprehension of the universal *in* the particular and of the particular *through* the universal. The concepts and judgments it utilizes substitute for our lack of an intellectual intuition of the singular." (193)

It would seem that Gilson asserts that we grasp the extramental thing's causal *form* because it is included in what we can know. However, he also asserts that a causal *form* as such cannot be grasped directly:

[Essences] are unknown to us because the form which confers their intelligibility upon them is itself purely intelligible. Now, pure intelligibility escapes our intuition; therefore, *per seipsas*, there are unknown to us. But we conceive them because they are present in their sensible effects, which we perceive and from which our own intellect abstracts them as quiddities. (203)

So, what do we grasp when we perceived an extramental thing? In we *conceive* a quiddity because we cannot directly grasp the individual *form* of the extramental thing, we allow the possibility of mental representation. Thus, despite Gilson's rejection of mental representations, he leaves open the door to intermediaries. That these intermediaries bear the real essence of the extramental hylomorphic composite designed for knowledge (epistemic realism) does not undermine an indirect knowledge via representations (indirect epistemological realism).

Support for this interpretation can be found elsewhere. In *Elements*, Gilson never mentions that the object of the intellect is an individual extramental thing's *form*, and he distinguish metaphysical reality from whatever we have in mind:

[Aquinas] thought and said that the proper object of the intellect is the essence, nature, or quiddity of sensible things, but he never said that sensible things there was nothing deeper than essences or quiddities. On the contrary, Thomas Aquinas repeatedly warned against the illusion that essence is the deepest layer in the metaphysical structure of even material being. Moreover, Thomas forcibly stresses the fact that the essences we conceive apart in our minds do not necessarily exist apart in reality. We naturally conceive things by mode of abstractions, but reality is not made up of abstract notions ordered according to some pattern as if they were so many fragments of a mental mosaic. (251)

In another place he says: “Now forms which are in matter are clearly not intelligible of themselves because it is immateriality which confers intelligibility. It is necessary, then that natures, that is, the forms which our intellects know in sensible things, be made intelligible in act.” (Christian 208) Thus, it is clear that “nature” differs from the individual extramental thing’s *form*, and it is not simply a causal *form* without matter. Later he adds:

...It is proper to this intellect to apprehend forms which, to be sure, exist individually in corporeal matter, but not to apprehend them inasmuch as they exist in this matter. Now, to know what subsists, in individual matter without taking into account the matter within which this object subsists, is to abstract the form from the individual matter which the phantasm represents. (218)

On the one hand, it seems that the abstractive act deprives the abstracted *form* from its substantial “*informing* causal” character. On the other hand, it also seems that there is an abstracted extramental thing’s *form* “represented” in the phantasm. Is this abstracted *form* just a likeness from the *form* (considered as essence) of the extramental thing? Is it exactly the same individual *form* but without matter? Gilson does not deny or confirm any of these views. He only remarks that essences in the mind are different from extramental things in reality (which are richer ontologically speaking).⁴⁷ If this is certain, how can we grasp reality? According to Gilson, our realist version of the world is “reconstructed” in the mind using these abstracted quiddities: “[Truth] ... intellectually ... grasp[s] the essence of things such as they are and ... associate[s] them in our own minds, by means of judgments, in the same way they are associated in reality.” (Elements

⁴⁷ “We claim no more than to form some very imperfect representation of the intelligible from sensible nature or quiddity.” (Christian 221)

252-3) According to Gilson, such a task is the “*adequatio*” between mind and reality, which is the basis for truth judgments and metaphysical realism.

The fact that Gilson greatly removes Aquinas from modern (critical) idealism led him to this inaccurate conclusion that Aquinas, in epistemology, is a direct realist. This shallow analysis on the ontology of the *species intelligibilis*, however, exhibits a confused explanation with regard to its role: it seems to be both the abstracted *form* (considered as essence) of an extramental thing and it also seems to be something ontologically different from the individual extramental thing’s *form*. This is strengthened by the use of the term ‘representation’ concerning phantasms and quiddities. In the end, Gilson seems to believe that Aquinas is a representationalist in spite of his own words.

Owens

Owens does not specifically address Thomist epistemology, but his study of Aquinas is fairly comprehensive, hence there are some references and articles about the cognitive act. In an article about cognition, he claims that Aquinas (and Aristotle) holds the opposite position of Locke and other modern authors. Whereas the latter meant to focus on knowledge in mental representations (ideas), Aquinas’ realism (like Aristotle’s) holds to a direct knowledge of real things. (On Cognition 112) This realism is only possible because knower and known thing become one in cognition.⁴⁸ Describing this well-known identification between knower and known, Owens concludes that the act of knowledge cannot be understood but as an act of “becoming:” it is not the case that the knower receives something from the known (or the known itself); instead of having something, the knower becomes the known.

⁴⁸ “...The percipient or knower becomes and is that thing in the actuality of cognition.” (On cognition 113)

On this account cognition is something very different from photography or recording. Cognition is not like *having* a picture or sounds... As something essentially different, the cognitive activity has to be explained in terms of being rather than having. (114)

Thus, the “information” received by knowing extramental things should be understood as “*information*,” i.e., not having the individual extramental thing’s *form* or essence, but sharing it (the *form* is being *communicated*, i.e., “made common”).⁴⁹ Of course, this non-*informative* act is possible because of the immateriality and intelligibility of the *form* in the mind.⁵⁰ According to Owens, especially in Aquinas’ account, the lack of existence of the things’ natures enhances the Aristotelian account.⁵¹ Natures, after Aquinas distinction between being and essence, can exist in three ways:

This explanation involved three different modes of existence: namely, divine existence, real finite existence, and cognitional existence. It permitted one to see how something could remain identically the same thing under the three different ways of existing. (On cognition 119)

The outcome of these distinctions can also be appreciated in the different ways in which we are acquainted with the nature and being of extramental things: “Aquinas... saw that the nature of things was known in intellectual abstraction while their existence was grasped through the judgment.” (118) If this statement is correct, then there is a problem: how does a *form* of an extramental thing cause the mind (the passive intellect) to become whatever the thing is? Is this a causal *form*? Or is this the *form* of the whole,

⁴⁹ *Communication* is a wider type of action rather than *information*. In physical efficient causation, an *information* also *communicates* the same essence by imposing the extramental thing’s *form* to the other sensible being (like fire heating water). But in the act of knowledge, there is not *information*: what is made common is not the same extramental thing’s *form* but the same nature. Cf. Gracia, Introduction 24-5. See also Peifer below, n. 92.

⁵⁰ “But when a form is received in immaterial fashion, there is not loss of form in either the knower or the thing known. The immateriality received form becomes in cognition the form of the recipient in the actuality of the awareness.” (On cognition 115)

⁵¹ “The lack of any existence in the thing’s nature ... gives a convincing explanation of how the same thing can exist both in reality and in one’s cognition, and thereby of how the thing existing outside cognition is the same thing that is known. Similarly it explains how the knower and the thing known can exist as identical in actual cognition.” (Aristotle 51)

the essence? In the first case, we saw that this is not possible (see above pp. 7-8); in the second case, the essence or *form* of the whole is not a being in itself, but it is an intelligible structure that exists having the status of an extramental thing, a *species* or a divine Idea. The explanation of this causal *information* to the mind given by Owens corresponds to two similes, one of an artist and another of a television program:

In this and similar cases there is no insuperable difficulty in explaining how the form is impressed physically and cognitively by its efficient causes through the appropriate media upon a distant thing. The form is thereby able to make the knower be the things or events as they are at the time the efficient causality originates. (On cognition 115-6)

[In the artist analogy] The form is existent as such only in the efficient cause and the ultimate effect. (On cognition 116)

The case of television is of course material reception. The television set itself does not see or hear or know what is going on... Is the same overall problem of how an efficient cause can transmit form through the media without affecting the media in the same way it affects the ultimate subject upon it is working. (On cognition 116)

In other place he also adds:

By their efficient causality transmitted through the appropriated media, the external things impress their forms upon the human cognitive faculties, and thereby make the percipient be the thing perceived in the actuality of the condition. (Aristotle 53)

The first thing note is the fact that the act of *communicating* the *form* (considered as essence) is absolutely an immaterial act. Owens also grants that causal *form* is the efficient and *formal* cause of an extramental being. (On Cognition 115) As such, there could not be “*information*” of the media, the senses or the mind. The way in which the extramental thing’s *form* or essence is grasped cannot be the same way in which the causal *form* acts in the composite, as “*informing*.” Aquinas conceives *forms*, according to Owens, as causes of individuality. As such, they are responsible for all the physical

determinations of the extramental thing. The role of this *form* is to cause these determinations:

To come into being, a material form requires existence in matter. Otherwise it would be a pure spirit. But of its nature it is meant to inform not matter in general, but a particular portion of matter in the shape and size suitable for a stone, a plant, or an animal... All that determinations springs from the nature itself and is prescribed by its form. *Real* individuation is what is caused.

... It causes individuation not insofar as it is simply a form, but insofar as it is a form meant by its own nature to actuate a particular portion of matter. (Thomas 185)

Thus, the extramental thing's causal *form* causes the composite to be both an individual entity (nature) and an individual being (existence). Despite the first efficient causality (God), the causal *form* is responsible for the concrete individual, both *formally* and efficiently. But this causal role is suppressed when *form* (considered as essence) is grasped in the act of knowledge. The proof is found in the way in which the information (data) about the extramental being is received. Owens admits that "...the quiddity is communicated as a common *ratio*, while its existence is not common. This is quite evidently the argument from the thing's quidditative content in a somewhat elaborated form." (Quiddity 15) Besides, because the existence in cognition is different than in nature, the abstracted *form* is a likeness of the extramental thing's essence but not the a copy of its individual *form*:

Just in itself, however, the thing's nature had not being whatever... If the nature common to both ways of existing and known through the incomplex concept [expressed by a single word] had any being at all of its own, it could not remain the same thing substantially under the different existential actualization... When existing in the human mind, the nature was universal, even though the concept was expressing it was something individual that was associated with a plurality of singulars. (Faith 452)

Therefore, according to Owen's analysis, what is common (*communicated*) and makes knower and known beings identical is not the individual extramental thing's *form* immaterially in the mind, but a likeness of its essence: it is the nature which is *common* to the extramental thing and the abstracted mental *form*. This likeness is what is called *species intelligibilis*, and this mental being conveys information to the mind in a way that it can grasp it. The information (data) is about the essence or nature of the extramental thing; nature is the *common ratio* of the previous quote. If what is grasped were the individual extramental thing's *form*, then we would have a completed notion of the extramental being (because a causal *form* is a principle of individuality and individuality –as efficient and *formal* cause). But we do not have it:

In this framework the sharp contrast between the *species* received by the intellect and the further *species* engendered by it became explicit. The *species* was indeed *impressed* by a really existing thing, yet the thing's nature had to be *expressed* in an incomplex concept that did not attain the being of the thing. (Faith 453)

As many other authors, Owens admits a distinction between the individual extramental thing's *form* and the *species intelligibilis* when he focuses on an ontological account of Aquinas. But as soon as we turn to the epistemological realm, Owens erroneously identifies individual *form*, *form* considered as essence, and *species* in order to maintain Aquinas' realism. This identification, however, is incoherent and unnecessary, because what identifies knower and known in cognition is not the knower's immaterial possession of the extramental thing's causal *form*. What knower and known have in common, what makes them one, is the same nature or *ratio*, due to the existence of a mental being which is able to be intelligized by the knower: the *species intelligibilis*. A *species* is, ontologically speaking, another mode in which nature exists –an instantiation

by which the knower can know the extramental thing. And the difference in which *species* exists matters, because “modes of being” is what makes *species* another kind of being, ontologically different than the individual extramental thing’s *form* (or an individual *form* of any of its accidents).

As a conclusion, we can see that there is a mix-up among the *form* of the part (causal), the *form* of the whole as individual essence, and the represented *form* that is known as universal. Thus, Gilson and Owens hold that there is a direct realism in Aquinas’ epistemology. This epistemological direct realism, however, has been derived in an unwarranted way from Aquinas’ ontological realism. This is why these authors implicitly recognize some features of the *species intelligibilis* which may be yield to a representational view. But representation is also regarded as a modern post-Cartesian position. And, from their point of view, it cannot be a proper way to describe Aquinas’ epistemology. In the next section we review some scholars who try to justify a direct realist view for Aquinas’ account on cognition.

1.2.3 Opinions of Experts on Aquinas’ Epistemology

This section discusses some well-known scholars who have studied Aquinas’ epistemology in depth. These authors hold the traditional view, despite the fact that they acknowledge the role of sensible and intelligible *species*, image, or phantasm. They recognize the representative character of these mental entities, and have some difficulty in order categorizing Aquinas as a direct realist. Nonetheless, they conclude that he cannot be regarded in any sense as a representationalist. We will start with a brief analysis of some authors who do not offer much argumentation, such as Hamlyn, Kretzmann, and

Haldane. A couple, Dewan and Kenny, will be reviewed at some length due to their insistence on direct realism. Finally, Peifer's view is presented in depth, because it is specifically devoted to the role of *species intelligibilis*.

D. W. Hamlyn

Hamlyn regards Aquinas' epistemology as a confusing and incoherent remake of the Aristotelian version, and as a dull copy as well: "it is a theory which is meant to explain what Aristotle meant when he said that in sense-perception we receive the form of the object without matter." (History 110) "Playing with words," Hamlyn claims, Aquinas would identify the existence of the extramental thing in the mind as an *esse intentionale*, as the same individual extramental thing's *form* but without matter.⁵² This "dubious psychology which has resort to inner agencies or *homunculi*" lacks, according to Hamlyn, a "coherent theory" for the assertion that the "object of perceptual awareness exists in us in *esse intentionale*." (111) Hamlyn, who considers Aquinas a moderate realist regarding universals (due to a dose of eclecticism as well) and a complete realist in metaphysics, does not explicitly describe him epistemologically as direct realist. Nevertheless, he brings into play Aquinas' empiricism (inherited from Aristotle) and, in particular, his theory of the act of abstraction as a way to apprehend a thing's essence. Elsewhere, he calls the *phantasmata* a representative mental being:

...Yet, being somehow representative of the objects which produce them, they are more than mere sensations. They are indeed more like the ideas or impressions of the British empiricists, Locke, Berkeley and Hume, except that Aquinas holds that we are not ordinarily aware of them. (Sensation 49)

⁵² (111). Cf. also his *Sensation*, 46 and ff.

Accordingly, he would probably have called Aquinas a representationalist, despite the fact that he believes that a copy of the individual *form* of an extramental thing resides in the mind, because of the role of concepts in Aquinas' epistemology. Hamlyn's account is a clear example of the traditional view, and also belongs among those that regard Aquinas' theory of knowledge as irrelevant, or as a simple copy of Aristotle's direct realism.

Norman Kretzmann

Kretzmann explicitly campaigns for Aquinas' direct realism. He asserts that this is the only way to preserve the identity between "the extramental object and the actual cognizing faculty in its cognizing of that object." (Philosophy 138) He analyzes the notion of likeness because it may be implied that there is "a dubious mixture of direct realism and representationalism." But Kretzmann rejects any interpretation of Aquinas as a representationalist because this would imply losing contact with extramental beings. Accordingly, the likeness establishes a causal relationship, rather than a representational one.⁵³

Kretzmann acknowledges, however, that "the effects are by the very nature potentially representative of their causes." (154 n. 39) Besides, he recognizes that "the external object's original individuating matter [is] beings 'represented' by features on the phantasm." (140) Furthermore he admits that

Aquinas does recognize, however, that intelligible species serve as the immediate object of abstract thinking he seems to call "considering"... In tandem with phantasms, intelligible species are intellect's means of access to the proper objects of intellective cognition. And intellect's proper

⁵³ (139). Kretzmann seems to rely on the physical effect of the extramental object in the sensible faculty. Nonetheless, this account is not accurate as we see above in pp. 7-8, and especially with regard to the *species intelligibilis*, which is not causally produced by a contact with extramental thing, or by an efficient/formal causation of the thing's causal *form*, but by the agent intellect along with the phantasm.

objects include the corporeal natures themselves, which exist only outside the mind, in material individuals. (141)

Despite all these suggestions concerning the *species intelligibilis* as a mental representation, he rejects this representational character for the *species* because “using the intelligible species in intellectual condition of the external world requires examining the corporeal nature in its natural setting.” Kretzmann does not distinguish between the content of a mental representation and the being of the representative *species*. As a contemporary author –and following Aquinas’ texts– he is tempted to use the notion of representation, but he programmatically denies any representation in Aquinas’ account of cognition.

John Haldane

Discussing whether or not epistemological realism is compatible with semantic anti-realism, Haldane categorically affirms that Aquinas’ epistemology is both anti-foundationalist and anti-representationalist (Mind 20). Consequently, there are two types of epistemic realism:

Either that knowledge and linguistic reference are essentially indirect, involving some kind of inference from the content of intentional states, and mediation via intervening intentional entities, respectively; or else, that cognition and meaning are constituted by direct, unmediated relations between subject and world. (16)

According to Haldane, Aquinas holds the direct view. The indirect view, a weak epistemic realism that advocates cognition via intermediate signs, corresponds to Cartesian epistemology. In view of that, he brings back Thomas Reid’s criticism regarding Descartes’ representative epistemology, which states that if Cartesian signs “signify elements of an external world [then it] is simply an unwarranted, question-begging assumption.” (16) Accordingly, cognition via representations cannot reach

extramental things. Hence, quoting the above-cited Aquinas' paragraph from the *Summa Theologiae* (see pp. 13-14), Haldane promptly remarks that Aquinas denies that cognition involves any intermediate representation. (20) There is no doubt, for him, that Aquinas advocates a strong version of epistemological realism –meaning direct realism. (24) Haldane does not deny, however, that Aquinas includes some mental beings in the act of cognition: “Conceptual contents may sometimes be the objects of thoughts ...[and] intellect may be directed not outwards toward the environment but inwards upon its own operations.” (20) But, these objects are known by reflection –the primary activity is the knowledge of the extramental thing. Accordingly, Haldane is merely acknowledging the physiological mechanism of our thought, the means of cognition, but he still believes in direct realism. Nevertheless, he speaks of “concepts and what they represent” (24) and believes that the “thought is intrinsically representational.” (26)

If representations are allowed (and used by Aquinas), why does Haldane insist in the strong version of epistemic realism? The answer corresponds to two misconceptions: one is about the information grasped through cognition. The other is about the notion of representation. First then, he assumes that the *form* of the whole or essence is acquired by the intellect in the act of knowledge:

There are two important features of the Thomist theory of cognition. First the insistence that the intellect engages directly with reality and not with some *tertium quid* intervening between them (concepts being the *means* and, apart from in reflection, not the *objects* of thought.) And second, the striking claim that the forms or natures which gives structure to the world, and the concepts which gives ‘shape’ to thought, are one and the same.⁵⁴

⁵⁴ (Mind 21) Cf. also: “Standardly, the way in which natures come to be separated from matter is in cognition. As we have seen, awareness consists in the reception of a form without matter. This is the process of abstraction, whereby the intellect reveals the *species* contained in the products of sense-experience (the *phantasmata*).” (Aquinas 237)

Despite the fact that Haldane acknowledges that an extramental cat and the concept of ‘cat’ are two different instantiations of the same nature, he does not always distinguish between the individual *form* and the abstracted mental *form*, i.e., between the causal *form* of an extramental thing and the *species intelligibilis*.⁵⁵ Indeed, he uses the term ‘*species*’ to refer to the causal *form* of an extramental thing in its causal activity: “the *species* which informs cognitive activity, and which are the mental counterpart of the species that determine the natures of individual things and thus are responsible for the structure of the world...”⁵⁶ It is not surprising, from the previous strong identification between *species* and extramental thing’s causal *form*, that Haldane also attributes the same *informative* role to *species*. Besides, it seems here that the “causal” *species* determines nature and not vice versa (that the nature or essence determines the extramental thing’s causal *form*). He also equivocally refers to nature or *form*, as what “give structure.” But *form* is either the structural cause of an extramental thing or the essence of the thing, i.e., an intelligible structure (and not a *formal*-efficient cause). And he does not distinguish the role of the *species intelligibilis* (a representative mental *form*) from the information conveyed by this species (which *is* about the extramental thing).

Secondly, Haldane’s view of representationalism is as conservative as expected: representation implies a solipsistic cognitive psychology. (Mind 16, 28) This notion of representationalism obviously does not apply to Aquinas’ epistemology. But we saw that this interpretation corresponds to modern representational realism, not to (medieval)

⁵⁵ Here he make the distinction: “Aquinas provides by reference to a distinction between nature or form, and existence... For Aquinas this is what cognition consists in: the presence in *esse intentionale* of a form or nature...” (Aquinas 235) On instantiability see below chap. III, pp. 155 and n. 70.

⁵⁶ (22). He uses italics for what stands as mental *species*, but there is not an explanation for a different type of being.

realist representationalism.⁵⁷ In conclusion, despite the fact that Aquinas uses the term ‘representation’ and that Haldane himself describes Aquinas’ mental beings as ‘representations,’ he concludes that Aquinas cannot be a representationalist. Like many other Aquinas’ scholars, he denies the designation of Aquinas as a representationalist instead of trying to understand the meaning and presuppositions of the use of ‘representationalism.’

Anthony Kenny

Kenny has devoted some effort to the study of Aquinas’ philosophy of mind. He acknowledges that Aquinas explicitly states that in the intellect there are no individualized *forms*, but only universals. Besides, the *esse naturalis* of an extramental thing’s individual essence is different from the *esse intentionale* in the mind (Intentionality 249). Nevertheless, when he discusses Lonergan’s point of view –whether there is a modal difference rooted in the way *forms* are received in different recipients– he rejects that opinion. He also refutes Geach’s position, according to which there is an identity –not just a similarity or likeness– in cognition between mental and extramental causal *forms*. According to Kenny, both accounts are inaccurate. (246-7) Accordingly, he affirms that what makes Aquinas a realist is his belief that *the same form* exists in mind and reality. (243, 254) He does not clarify whether he refer to *form* considered as essence or as cause, though. In another place he tries to determine the notion of likeness dealing with the identity of knower and known:

‘Does thought resemble its objects?’ If we are thinking of the universal objects of thought, then ‘resemblance’ is too weak a word to describe the closeness between thought and object. The relationship between the two is not of resemblance but of identity –identity in actuality. If we are thinking, however, of the material objects in the world, then the resemblance is one of similarity, as describe above: the object and the thought resemble each other in that they are both informed by the same form; they differ from

⁵⁷ See above p. 17, especially n. 35.

each because of the mode of existence of the form is totally different in the two cases.⁵⁸

In first place, it is not clear in which sense Kenny is talking about identity here: is it epistemological or ontological identity? Second, if he wonders whether ‘objects of thought’ and ‘universals’ are ontologically identical, he is creating a non-existent problem in Aquinas. What exists in the mind as object of knowledge is a *species* (or a universal concept) which conveys the abstracted extramental thing’s essence, and this is what constitutes the universal. Thus, the distinction is only between representative *species* and its content, but is only one thing that exists in the mind. *Species intelligibilis* is not identical with “nature” or “essence,” because these are not “objects” *per se*, but rather the *ratio* by which the *species* and the extramental thing are epistemologically related (they “share” the same nature). Third and finally, if what was meant as ‘object of knowledge’ is the extramental thing, there is not only certainly a resemblance between the *species* and it, but a great resemblance because they share the same essence. Yet there is not a direct resemblance, or a direct representative relation, between *species* and thing, because the *species* represents indirectly the thing, being an instantiation of the thing’s essence (or any accidental essence), and not another instantiation of the individual thing. It is the image or phantasm what directly resembles the extramental thing.

In any case, Kenny speaks here about the relation of identity that exists between the object of knowledge and the cognizing mind, which are in act: this is the well-known identity of knower and known.⁵⁹ It is not in this identification where Aquinas says that

⁵⁸ Universals 108. Cf. also Intellect 68-69 on the difference on natural and intentional forms.

⁵⁹ “Thomas and Aristotle believe that sensation is an activity that remains in the one who senses, and is not an activity that passes from an object to the organ. Thus, Aquinas calls it an immanent activity (as opposed to a transitive activity- like the heating of water). Aristotle says that it is a kind of being acted upon or motion, but one that should receive its own name. Like transitive actions, e.g. the heating of water,

there is a likeness, though: the likeness exists between the *species* and the extramental thing. In any case, if Kenny recognizes that there is a problem with the identity relation between the object of knowledge and the mind, why does he maintain that whatever is cognized is the extramental thing's *form* (in any sense, as causal or individual)? If he holds that Aquinas can hardly justify a likeness (resemblance) between the *species* and the extramental thing, and not an identity, why does he deny representationalism? The reason is that for him, as for many other Aquinas' scholars, representationalism is synonymous with idealism: he thus affirms that Aquinas is "not a representational idealist." (Intentionality 250) According to Kenny, to be a representationalist is to know exclusively our own ideas. He identifies knowledge through mental representation as the knowledge of our own ideas. Because this knowledge is *about* extramental things – though gained *through* our representations–, he insists that there are not representations at all in Aquinas' epistemology. (Aquinas 70-72) Elsewhere, Kenny asserts that Aquinas' intentionality differs from representational theories where the immediate object of our perception is not the external world but our sense-data. (Perception 35)

something receives a new form as the water receives the form heat from the fire. However, in such cases, the form of heat in the water is not the same as the form of heat in the fire, but only the same in kind, being in different parts of matter. Moreover, in the case of the heating of water, the water loses the form that it had before, namely the form of coolness. In the case of sensation, these features do not obtain: the reception is not of a similar form, but of the SAME form; and the reception does not involve the destruction of the pre-existing form, but does involve the fulfillment and completion of the knowing power; and thus, the reception is not into matter, but a kind of immaterial reception. Thus, the knower becomes one with the known, because it IS in a new way, i.e. with the very same form of the thing known, and this happens in an immaterial way that fulfills the knower." (Magee) In Aquinas' words: "For if the agent intellect as such included the definite forms of all intelligible objects, the potential intellect would not depend upon phantasms; it would be actualised simply and solely by the agent intellect; and the latter's relation to intelligible objects would not be that of a maker to something made, as the Philosopher here says; for it would simply be identical with them. What makes it therefore in act with respect to intelligible objects is the fact that it is an active immaterial force able to assimilate other things to itself, i.e. to immaterialise them." (*InDA* III, X, 739) "Finally, at 'knowledge in act,' he repeats what he has said intellect in act, that actual knowledge is one with its actual object" (*InDA* III, XI, 764) See also Owens above, p. 29.

It is the lack of distinction between epistemic and ontological identity what leads Kenny to this opinion. Moreover, the identification of ‘representation’ with idealism is the reason why Kenny holds that the individual extramental thing’s *form* and the mental *form* are the same. In addition, Kenny, like many other Thomistic scholars, wants to reaffirm that the object of knowledge “is not” the *species*.⁶⁰ We can discern, however, between idealism (as a form of representative realism) and realist representationalism, as has been shown above.⁶¹ If there is a difference between the modes of existence of an extramental thing’s essence and a mental *form*, it is because there are two types of beings, the individual *form*—as quiddities of material things— and the *species*. In addition, there are extramental thing’s *forms* —considered as essences— which are not beings: a thing and a *species* are modes of being in which a nature (a *form* considered as essence) can exist. A causal *form* is the cause of the thing, and the individual *form* is the concrete essence of the hylomorphic composite. These two *forms* have *esse naturalis*, whereas a *species* exists only intentionally (in the intellect, spiritually and immaterially). In the same way that he recognizes that the passive intellect does not become the thing known (Intellect 71-72), Kenny should have recognized that a *species intelligibilis* does not become an entity *informed* as an extramental thing is in its hylomorphic composition.

Lawrence Dewan

Dewan presents a stronger version of direct realism credited to the traditional view. He not only rejects a representational interpretation of *species intelligibilis*, but also is suspicious of some direct realist accounts. Consequently, he criticizes Copleston’s

⁶⁰ He presents the same confusion between the content of information (metaphysical realism) and the way in which this information is conveyed (epistemological direct or indirect realism). Additionally Kenny, like other contemporary scholars, not only confuses, but also insists that species, concept and idea are the same. Cf. Aquinas 69, Nature 47. For the difference between “ideas” and concepts see chap. III, sec. 3.1.2.

⁶¹ See above pp. 17, especially n. 35. See also below chap. III, sec. 3.1.5 and 3.1.6.

direct realist interpretation of Aquinas, in order to promote an “immediatist” view.⁶²

Thus, we must first explain what is Copleston’s view about Aquinas’ cognition. In the

History of Philosophy, concerning Locke’s representative realism, he points out that

[Locke] oscillates between a representationist view, according to which ideas are the object of knowledge, and the view that ideas are simply psychic modifications by means of which we know things directly. Or... between two ways of talking, speaking sometimes as though the idea is the *medium quod* of knowledge (his declared view) and sometimes as though it is the *medium quo* of knowledge. (Copleston V, 126)

According Copleston then, a position which regards intermediary “ideas” as the object of knowledge does not “know things directly,” and is not a realist view at all. On the contrary, in Aquinas’ direct realism, “the concept is the likeness of the object produced in the mind and is thus the means by which the mind knows the object.” (II, 390) He devises his direct realist interpretation from the analysis of Aquinas’ description of *species intelligibilis*: it is *id quo intelligitur* (that by which the mind understands), not *id quod intelligitur* (that which is understood).⁶³ For Copleston, this provides clear evidence that Aquinas avoids “subjective idealism.”

According to Dewan, nevertheless, Aquinas’ *species intelligibilis* should not even be understood as a *medium quo* –a “means by which.”⁶⁴ This interpretation of *species intelligibilis* lead to confusion because, whatever the case may be, we return to look upon *species* as “*medium quod*,” (as a representation) which is the reading that Copleston and

⁶² Patrick Lee (94) distinguishes between “direct realist” and “immediate realist.” The latter group holds that we know the extramental world without any kind of mediation.

⁶³ ST 1a, 85, 2c. Aquinas’ famous expressions are taken from two sentences of the following paragraph: “*Et ideo dicendum est quod species intelligibilis se habet ad intellectum ut quo intelligit intellectus... Et sic species intellectiva secundo est id quod intelligitur. Sed id quod intelligitur primo, est res cuius species intelligibilis est similitudo.*” Trans: “Therefore it must be said that the intelligible species is related to the intellect as that by which it understands... Thus the intelligible species is that which is understood secondarily; but that which is primarily understood is the object, of which the species is the likeness.”

⁶⁴ Dewan also insists that we should not regard likeness as “looking at,” nor *species intelligibilis* as the being by which the mind is “seeing through” extramental things.

other defenders of the direct realism interpretation are trying to avoid:⁶⁵ indeed, *species intelligibilis* as a medium implies a position that regards intermediary “ideas” as the object of knowledge.

Dewan proposes, as a substitute, an interpretation of the *species intelligibilis* in which the mind is “being programmed” by the *species* to look at the extramental thing. This view correctly explains an immediate knower’s cognition of the extramental thing and avoids representationalism. (Thomas 399, 400) This interpretation sounds like the metaphor of a mirror: if we are immediately directed toward the extramental thing, whatever we should be looking at is “an accurate representation” of the extramental thing. The image in the mirror may “program” our mind to look at the extramental thing. Yet, for Dewan, this metaphor is totally misguided as well:

Our strong tendency is to interpret “knowing through” ... [as] seeing “through” the mirror, seeing the things in and by seeing the mirror. And that is just the picture St. Thomas wishes to eliminate. So also, “by means of” and “medium” suggest the mirror somewhat.

In the mirror-situation, the likeness one sees in the mirror is already a terminus or goal of a presupposed act of “looking.” That is why the mirror-situation can never serve as a fundamental conception of the act of knowing: it always sends you to an earlier act of knowing, thus giving rise to an infinite regress in the explanation. (400)

Dewan ignores that Aquinas himself used this metaphor.⁶⁶ Nevertheless, he argues that the metaphor of a mirror “is the great enemy to understanding the doctrine of the *species intelligibilis*.” There should be no “medium” at all. In any case, how does Dewan understand *species*? How is the mind is programmed to look directly and immediately at the extramental reality? He does not give a clear answer by any means.

⁶⁵ Dewan accepts the interpretation of “medium” for concepts (Thomas 401).

⁶⁶ See below chap. III, section 3.3.3.

He also compares *species* with a stove and a kettle: by virtue of heat, a stove performs a heat-oriented operation: “The heat of the stove stands at the very beginning of the operation called “heating the water.” We are thus to envisage the *species intelligibilis* at the *origin* of understanding in the one who understand. (400) But Aquinas distinguishes natural change from spiritual by saying that the action of the fire is an efficient-*formal* causation, whereas the knowledge of an extramental thing (spiritual change) does not involve this type of causation.⁶⁷ In the first case, the fire passes the heat *form* to the water. Does Dewan mean that *species* “*informs*” the passive intellect, producing an efficient and *formal* causation? Dewan produces his metaphors without producing clear explanations.

We saw above that, even in the case of direct realism, there are some means (concepts, ideas, physiological mechanism, etc.) that were accepted in order to explain the difference between mental and extramental beings.⁶⁸ The difference with representative realism is that these means are not considered as the object of thought. Dewan intends to take a step backwards, eliminating even the interpretation of physiological means for *species*.⁶⁹ He believes that his view is justified because—in his analysis—the direct cause of our knowledge is the selfsame extramental thing’s *form*:

There must be, over and above the essence of the soul, present in the soul, the immaterially-present specific form of the other thing. This is what is meant by “*species intelligibilis*.”

...Yet the form of the thing known must be present in the knower. This is because the knower, as knowing, is already being conceived of as “knowing *the other thing*.” I.e., the other thing enters into our very conception of the knower, considered in the act of knowing. (398)

⁶⁷ See above pp. 7-8, and below chap. III, sec. 3.2.2.2.

⁶⁸ See above pp. 15-16, especially n. 32.

⁶⁹ “Copleston’s expression: ‘psychic modifications by means of which we know things directly’ might serve as a description of the *species intelligibilis*, as long as we are not misled by the words: ‘by means of’ (even ‘psychic modification’ is misleading, if we think of a modification on our *awareness*, i.e., in our own consciousness).” (402)

Whatever we understand is the extramental thing's *form* "received" as *species intelligibilis* in our mind. Because he refers to the "presence" of the *form*, he cannot be speaking of *form* considered as essence (intelligible structure), but only as a being, the individual *form* of the extramental thing. Dewan's complete identification between *species intelligibilis* and the individual *form* of extramental thing leads him to conceive a metaphor of the knower *programmed* to look at the extramental thing: "programmed, as it were, by the form of the thing, we perform an operation which is entirely thing oriented." (399) But if Dewan regards the extramental thing's *form* as the cause of knowing, terms such as '*species intelligibilis*' and 'likeness' are simply synonyms that refer to one unique entity: a causal *form* of an extramental thing.

Dewan's epistemological view starts on very fragile ground, which is the denial of mental beings as means of knowledge. It is very difficult to explain how the individual *form* of the extramental thing is in our mind instead of a mental being that stands for it. Dewan may be thinking that whatever being we have in mind is another instance of the same causal *form*. But even in that case, Dewan's view is mistaken: the *species intelligibilis* and the extramental thing's causal *form* (which cause of the composite essence) are two different entities, ontologically speaking, and whatever is under our consideration cannot be the individual extramental thing's *form* but a likeness of the extramental thing's *form* considered as essence, which shares the same nature.

In spite of this extreme identification of the extramental thing's causal *form* and the *species intelligibilis*, Dewan's position is more coherent than that of authors who pretend to maintain both, a representative *species intelligibilis* and a direct realist view. If the extramental thing's causal *form* were in the mind, there would be direct and

immediate cognition, but this is not Aquinas' account of knowledge. But Dewan's view is less consistent: Dewan affirms that *species* is a composite of matter and *form*, which is logically and textually inaccurate.⁷⁰

Additionally, Aquinas uses intermediary terms such as '*species intelligibilis*,' 'likeness,' 'phantasm,' and '*representatio*' among others, which require a proper explanation within his epistemological framework. And he never confuses 'ideas' with 'concepts,' as Dewan does. (394-5) Last, but not least, an extramental thing's causal *form* in our mind both cannot be there (because of the spiritual nature of the mind) and would be *informing* something (which would imply agency and efficient causation).⁷¹ As a result, Dewan's interpretation may be somehow more coherent but, in the end, it is inaccurate.

As Dewan acknowledges elsewhere, *form* is the cause of both the extramental thing's *ens* and *esse*, i.e., it is the efficient and the *formal* cause of the extramental thing. (Metaphysics, 315) Furthermore, "the species [universal, quiddity] is the individual composite taken universally. The real ground for so taking it is the particular form." (310) "The form is the principle of the universal." (309) As a metaphysical explanation, it is correct to look upon individual *form* as synonym of essence and nature. Nevertheless, he acknowledges that *form* as efficient and causal corresponds to what Aquinas has called "*form* of the part," not "*form* of the whole" which is the real quiddity. (307) Thus, Aquinas defines quiddity as the composite of matter and *form*, not taking "this"

⁷⁰ See the quote in note 74 below. He thinks that *species* is a hylomorphic composite because it includes information of the extramental thing's matter.

⁷¹ "...because the fact of its being in a state of potentiality makes [the intellect] differ from the intelligible object [extramental thing] and assimilates it thereto through the intelligible species... and makes it to be perfected thereby, as potentiality is perfected by act." (ST 1a, 14, 2 ad 2) See above pp. 7-8.

individual matter, but general or unspecific matter. If this is correct, as Dewan himself confirms, the proper conclusion is that the *species intelligibilis* –as foundation of the universal– cannot be the extramental thing’s causal *form*, because the *species* must stand for the real and concrete being, the individual being’s essence or quiddity (the *form* of the whole). And, once taken as universal essence, although includes unspecified matter, it is abstracted from the individual essence of the composite into the extramental thing’s *form* considered as essence or logical *form*.⁷²

But Dewan regards the metaphysical approach to as the right one in order to reach concreteness.⁷³ The definition of quiddity, in which one only considers unspecified or abstract matter, is a mere logical approach.⁷⁴ He believes that “the very term ‘quiddity’ is not seen as exclusively pertaining to the logical consideration of substance.” (298) Therefore, “the study of quiddity is seen as an approach to the substantial form” (299) and he complains that “expecting a treatise on form, we get one on quiddity.” (305) All of these considerations leads Dewan to conclude that (a) the real quiddity, (b) the essence in metaphysics, (c) the *formal* and efficient cause of the thing, and (d) the object of knowledge in epistemology, converge in the extramental thing’s causal *form*. This justifies the immediate direct realism that he attributes to Aquinas: “St. Thomas makes it a major point that the logical consideration is inadequate, does not give us the real quiddity, and requires completion by the properly metaphysical treatment.” (304)

⁷² See chap. III, sec. 3.2.2.2 for difference between individual, cognitional, and essential *form*.

⁷³ “While the study is of quiddity, we are quickly obligated to turn your attention things in concrete ... Beyond the quiddity lies the substantial form, which is the real target of our metaphysical quest.” (305-6)

⁷⁴ “St. Thomas is distinguishing between form, the physical principle, and species, the effect of form found in our intellectual conception of the thing (the species, as we will see, is a composite of form and matter taking universally). I.e., St. Thomas is already eager to distinguish what pertains more to logical consideration, the species, from what pertains to metaphysics in its properly scientific character, the substantial form.” (305)

Dewan's interpretation is not only inaccurate, but also contradictory. He forces Aquinas' intentions to fit his own expectation: that the extramental thing's causal *form* is the *species intelligibilis*. In contrast, Aquinas' realism clearly stands for sensible extramental things, which are composed of *form* and matter. Their individual essence, which cannot be grasped, contains this specific matter and *form*. Our knowledge originates from these concrete sensible individuals. And the quiddity that corresponds to the definition, takes into account general unspecified matter and express a universal *form*, as synonym of essence: the *form* of the whole. Even if we take for granted that the extramental thing's causal *form* (*form* of the part) is the origin of knowledge, Dewan would have to explain how we have knowledge of unspecified matter, how we can return to the individual (in the phantasm), and how the causal *form* of extramental thing explains our view of reality as a universal essences (*form* of the whole).

John Peifer

Peifer is a specialist in cognition in Aquinas. He develops a detailed interpretation of the act of knowledge, and specifically deals also with the *species intelligibilis*. At first glance, he seems to support the view that Aquinas is a representationalist:

Certainly, to be known the thing must be *in* the knower; it cannot be in the knower in physical existence ... Not only is the *act* of knowing immanent, but the *determinant* of the act, the intelligible species, which is a likeness of the thing understood, is immanent. (34)

Certainly it is not the thing itself that is in knowledge; if it were, it will be known exhaustively. What is in knowledge is a similitude of the thing, which similitude is more or less perfectly received according the condition and capacity of the knower. (75)

According to Peifer, cognition is not only an immanent activity, but the *species* is just a likeness of the extramental thing, which is not known exhaustively. Nevertheless,

Peifer does not define Aquinas as a representationalist because he regards the *species* as the same as the extramental thing's causal *form*:

Knowledge is accomplished through the immaterial possession by which the knower of the very form of the other as other, of the very form which makes the object to be what it is. (71)

Thus, the *form* in our mind is the same as the causal *form* of the extramental thing, the *form* that causes the being and the essence of the thing. He also claims that the concept, although representative, contains nothing but the abstracted *form* of extramental thing.⁷⁵ This is totally confusing, because Aquinas distinguishes between (a) the causal *form* of an extramental thing which is located in the individual composite (*form* of the part), (b) the individual *form* that result from the hylomorphic composite—losing its causal function—, (c) the abstracted extramental thing's *form* considered as essence (*form* of the whole), which is the intelligible structure that has been actualized as an accident of the soul (the *species intelligibilis*), and (d) the knowledge of the pure nature, the total abstracted *form* which also is inherent to the soul and represents the universal essence.⁷⁶

A question for Peifer is, if the *species intelligibilis* is the same entity as the extramental thing's causal *form*, how can it be in the mind? Does he imply that the mind becomes the same entity as the extramental thing? According to him this is not necessary because of the new immaterial existence of the causal *form*: “The intellect makes the things of the real world its own by giving them a new existence within itself.” (37) The knowledge of the extramental thing is precisely possible due to this new immaterial

⁷⁵ “In so far as it [the concept] contains within itself the very form of the extramental thing...” (38) He refers here at the so-called “formal concept,” or “*species impressa*” which is the result of the passive intellect's *information* by the active mind and the *species intelligibilis*. For more details about formal concepts, see below n. 89.

⁷⁶ See below, chap. III, sec. 3.2.2.2.

existence.⁷⁷ Peifer does not follow the consequences of dealing with an entity ontologically different from the extramental thing's causal *form*. Is it the case that he does not recognize a proper way of being for a "*formal* cause"? Is it not the case that the essential task of the causal *form* of the extramental thing is to cause the extramental thing, to bring it into being? In this Peifer agrees; indeed, he stresses that the causal *form*'s function is a principle of reality: "Form in the physical order is a radical principle of operation, as the form of the heat in the fire is the efficient cause of the transient activity of heating." (93) So the causal *form* of the agent (fire) is both the efficient and the *formal* cause of the heated patient (the kettle) of a warming action.

He also maintains that *forms* certainly cannot exist without matter, unless they are abstracted.⁷⁸ As stated by him, when abstracted, they can exist in the mind without "*efficiently* causing" anything to be, because they are only known intentionally.⁷⁹ Thus, he believes that the *form* of the extramental thing is the *formal* cause of the composite in the sensible world, which can act as efficient cause of another being (as the fire heating the kettle). But here we are not only concerned with "efficient causality" of a causal *form* of an extramental thing; we are also concerned with its "*formal* causality." Peifer figures that there is no such problem because there is no matter to physically *inform*; therefore, there is no efficient causality. But a *form* always *informs*, because this is its role: to *inform* is to give to a patient a *form*. This means that the extramental thing's causal *form*

⁷⁷ "This [immaterial] existence does not make a thing to be a subject, sealing it up within its natural limits; rather it enables a knowing subject to know. That which exists with a natural subjective existence as an independent thing, also exist in the knowing subject—it is an intentional existence as object of knowledge." (60)

⁷⁸ "Matter cannot exist without form, and all forms, except the human soul, likewise have no existence in the physical order save in union with a material substratum." (47)

⁷⁹ "...The faculty is not physically changed or altered by union with its object. ...The cognitive faculty can simultaneously be *informed* by species of physical contraries. An object cannot be simultaneously *informed* by the physical forms of whiteness and redness, but intentional forms, because they are intentional, are without physical contrariety." (68)

cannot be grasped as such by the intellect, because mind cannot “have” a *formal* cause at all; it can only grasp a *species*, as a likeness of the essence of an extramental thing, which is not either a *formal* or efficient cause. Indeed, this is a plausible explanation for its new mode of being as spiritual and intentional entity.

Peifer not only overlooks the ontological status of a *species intelligibilis* but also thinks that an abstracted causal *form* still has an *informative* role to fulfill. Despite the fact that abstracted *forms* only exist in a intentional and immaterial way, he states that they have an “*informative* causal” relation to the passive intellect:

As the act of knowing consist in the reception of form, it is analogically similar to the reception of form by matter. Moreover, as the reception of form by matter is the becoming of composite, so the act of knowing is a becoming in which the knowing subject is some ways becomes the object known. (56)

Here Peifer seems to contradict himself. On the one hand, the *form* received in an immaterial way is not acting as an extramental thing’s causal *form*.⁸⁰ On the other hand, the role of the passive intellect in the act of knowledge is, like matter, waiting to be *informed*.⁸¹ For him, *species* works “like” *formal* cause in relation to a passive intellect.⁸² It is not clear, however, what this “*formal-like*” cause could be: Is it *informing* or not? In any case, he supports his interpretation by insisting that there is a difference owed to the immateriality of the “known *form*.” Yet, he keeps the hylomorphic analogy throughout regarding the act of knowledge:

⁸⁰ “...For the cognitive power does not receive a form in knowledge as *its* form, but precisely as it is the form of the other, of the thing ... a knowing being does not receive form as matter does, it receives form in an immaterial way.” (51)

⁸¹ “A cognitive faculty is like matter in that it is receptive of form, but at the same time, is totally different from matter in the manner in which it receives form.” (63)

⁸² “The causality species exercise in knowledge is analogically similar to the causality forms exercise in nature.” (64) This alleged analogical similarity turns out to be very similar, as in the need of *information* of the passive intellect: “In order for the cognitive powers to pass from potency to act, they must receive a form which will actualize and determine the power. That form is the impressed species.” (67)

The impressed species is produced by the active intellect as determined by the instrumentality [cause] of the phantasm, and is but received by the possible intellect... the expressed species, on the other hand, is produced by the possible intellect as actuated by the impressed species... the impressed species can be retained by the possible intellect apart from actual cognition; and in such a state the impressed species informs merely entitatively, but not intentionally... the expressed species, on the other hand, exists only at the time of actual cognition, since it represents the object as it is known in act. (144-5)

The reason Peifer insists on identifying the *species* with the extramental thing's causal *form* is the fear of modern representation and idealism.⁸³ The similitude between the *species* and the extramental thing's *form* is not in some aspect, but constitutes a complete identification.⁸⁴ Indeed, he thinks that Aquinas speaks of "a likeness" only because there is an immaterial grasp of the *form* of the extramental thing:

The cognitive power possesses the form in knowledge, not as its form, but the form of the object. ...The form in knowledge is called a *similitude*. The form in knowledge actuates and determines the knower *to know the object*. (70)

One thing that is clear is that Aquinas defined the *species* as a likeness of the extramental thing (a likeness of its essence). As seen above (p. 13), he never said that a *species* and the extramental thing's causal *form* were identical, or even an exact match. Peifer cannot match the individual *form* of the whole with *species* as well, because the extramental thing's *form* considered as essence that is known is different from the concrete composite's *form*. Indeed, concerning the extramental thing's *form* in knowledge, Aquinas uses a different word (*species*). This may lead to the suspicion that Aquinas did not want to identify them (at least not ontologically: they are two different

⁸³ Cf. pp. 13 to 28, where he describes cognition by modern philosophers.

⁸⁴ "If the form in knowledge is not really identical with the form in the thing, if it is merely a similitude, a likeness of the thing, then we do not know the thing but something like it. ...[In that case] the two things are by no means identical, they are merely like one another in some respect." (72)

beings).⁸⁵ According to Peifer, however, the only difference between the *species* and the extramental thing's *form* is simply the mode of existence.⁸⁶ Thus, he concludes that to have the *form* in the mind is precisely the reason for the similitude:

There is thus good reason for denominating the species a similitude of the thing. As inner principle of knowledge it is a thoroughly exact likeness of the thing, this or that determination of the thing, which in the thing determines the thing so and in the knowledge determines the knowledge. ...Socrates is actually a man, an animal and a body. The similitudes that are had of him are accurate, but simply indistinct. All reality possesses an analogical likeness, some real thing are generically alike, and others specifically the same. (77)

Peifer acknowledges that there is a difference between the extramental thing's *form* as existing in reality and the knowledge that we possess (an abstract knowledge of *forms*).⁸⁷ The determination of a thing is the extramental thing's causal *form*; therefore, he assumes an exact likeness is between *species* and causal *form*. He regards the *species* as the means by which a "real" cognition is possible: knowledge depends on the quality of the *species*.⁸⁸ However, any possible representation (that Peifer granted at the level of concepts) is based on an apprehension of the copy of the extramental thing's causal *form*.⁸⁹ The difference in the mode of being between mental and causal *forms* is the only thing that counts as difference:

⁸⁵ See above, pp. 4-5 and n. 6 as well.

⁸⁶ "That the form in knowledge is called a similitude of the object, and not the form itself of the thing is primarily due to this difference in its mode of existing." (72)

⁸⁷ "Hence the mind knows forms which exist in nature, but *not* as they exist in nature. It attains them in an abstract manner, with the result that the formal object of a formal concept in direct knowledge is an *abstract nature*. What is directly attained in an intellectual knowledge is an abstract universal." (196)

⁸⁸ "The species in knowledge is not the very thing which is the object of the act of knowing, but a similitude of that object, by which the object is known more or less completely, and more or less distinctly according to the richer inner of the species. The species is the measure of the degree of the knowledge of the object, for the species is the inner cause of the act of knowing." (76)

⁸⁹ The formal concept is a re-presentation of an object in knowledge. The object is duplicated not as regards form and intelligibility, but as regards existence; the same determination which exists in the thing exists in the formal concept of the object. That determination is represented in knowledge, and as such it is present to the knower in the act of knowing. (190)

As things or spiritual qualities inhering in the soul, they are greatly different from any reality outside the mind. Considered formally, however, in their intentional function, each is a formal similitude of an extra-mental reality, representing or containing it in *esse intentionale*.⁹⁰ (145)

This recurrent identification of the *species* and the extramental thing's causal *form* leads Peifer to the contradiction noted above: if the *species* is the same as the extramental thing's causal *form*, knowledge of the concrete extramental thing's quiddity should be not only possible but exhaustive.⁹¹ If this is a case of *communicating* the actual extramental thing's causal *form*, possession of the same *form* should produce a direct understanding of an extramental being's essence of the individual, as it exists in physical and sensible reality, with all its distinctiveness features and its concrete matter. Abstraction would be just a task of dematerialization, without any act of conceptualization (or representation).⁹² Our knowledge would, thus, be comparable to the angelic knowledge. But Aquinas has explicitly denied this situation. Indeed, Peifer admits that what we have in the mind is ontologically different from what exists in reality, due to the difference in mode of being.⁹³ Still, it is not meant as a representation.

Even if we take for granted that the *species intelligibilis* is just an abstracted and immaterialized causal *form*, there is still a problem to solve. How is a causal *form* of an extramental thing conveyed? How is it *communicated* to the possible intellect? According

⁹⁰ Peifer attributes some representation to the (formal) concept or *species impressa*, as a container of the extramental thing's *form* but as *esse intentionale*. This concept is formed by the agent intellect and the *species intelligibilis*, which is the extramental thing's *form* itself but abstracted, immaterially considered.

⁹¹ "[During abstraction] The intellect, on the other hand, receives intelligible similitudes in a more perfect immaterial way, as stripped of the individuating conditions of the matter." (115)

⁹² "The communication of form in nature is through material reception; consequently it is marked by the limitations and distinctions which such reception entails. The communication of form in knowledge is through immaterial reception in which the form of other is received not only in its otherness, but precisely as here and now impressed (for the external senses), as here and now present in knowledge (for the rest of the cognitive faculties)." (78)

⁹³ "...The knowing subject becomes the object in the intentional order while remaining what it is in the order of nature." (58)

to Peifer, the extramental thing's *form* is carried by the so-called *species impressa* or formal concept, as in a container.⁹⁴ Is he speaking here about the individual *form* of the whole as the content of the *species intelligibilis*? Or does he still conceive that the *species* carries the abstracted extramental thing's causal *form*? Whatever the case may be, Peifer maintains that a formal concept bears a "double nature," one being the vessel or container, the other a copy of the extramental thing's *form*.⁹⁵ Likewise, a *species intelligibilis* presents a double nature in the mind:

The species is a *form*, as determinant of knowledge, and *similitude* as determinant of knowledge of the object... the form existing in knowledge is the principle of the act of knowing, not the object of the act. (95)

On the one hand, the *species* (and the concept) is an accident of the intellect.⁹⁶ It is an accidental being *informing* the soul as a result of its own nature. On the other hand, it transmits information to the intellect due to its "*informing*" character: the *species*, as a *form*, acts as *formal* and efficient cause: "When the form in knowledge is an effect of the thing, then the thing is in some way the efficient cause of the knowledge, while the similitude is the formal cause." (74) The *species*, as a copy of the extramental thing's causal *form*, fulfills the role of "efficient cause" after all. That is why Peifer errs when dealing with the immaterial act of knowledge as an analogical case of a hylomorphic activity in the sensible world. Lonergan (among others) has exhaustively analyzed the act

⁹⁴ 194.

⁹⁵ "...The twofold information of the concept: its entitative information in so far as it informs the subject as does any other accident through inherence; and its distinctive information in the cognitive order whereby and individualized accident can be the means whereby a universal nature is known." (84)

⁹⁶ 88, 190. "[The impressed *species* and the formal concept (expressed *species*)] are immaterial accidents inhering in the possible intellect. Both belong to the general class of quality, most likely the first species, habit and dispositions." (145)

of causation, and shows that there is a very different type of activity when we deal with “immaterial” cognition.⁹⁷

There is a basic problem when scholars try to defend Aquinas’ realism by arguing that the object of knowledge, the *species*, is no other than the causal *form* of an extramental thing. The object that is a principle of reality, a *formal* cause, cannot be grasped as such, despite the alleged process of dematerialization. To be a causal *form* is to be this individual *formal* cause (for this individual composite being) in sensible reality. Likewise, there is a similarity between an individual *form* of the composite and a *species*, very similar it may be said, but not identical. Thus, an individual *form* and a *species* are two modes in which an essence or nature can exist. They are ontologically different, two instantiations, even if epistemologically identical.

It is important to mention that Peifer did not realize that his account of the *species intelligibilis* as a container would make a *species* the only entity within the Aristotelian-Thomistic metaphysic that comprises two *forms*. If, as a defense, he have said that the extramental thing’s causal *form* carried by the *species* is not as an *informing* cause, but as an “immaterial copy,” then there would be no extramental thing’s causal *form* in the mind, but an abstracted likeness of the thing: a representation of its essence. Because, when an individual *form* is carried away by either a *species* or a concept, it is not longer “a causal *form*,” it is the *form* considered as essence, the information about the extramental thing, not its *formal* cause minus concrete or *signate* matter. In such a case, as an “abstracted *form*” presented to the mind, it cannot “*formally* cause” anything, because it is no longer a *formal* cause, nor the individual extramental thing’s *form*.

⁹⁷ See above pp. 7-8.

Besides, the *species intelligibilis* is not a container, but rather an entity which conveys knowledge as information, i.e., the extramental thing's *form* of the whole considered as essence. Finally, Peifer's analysis cannot make sense of the words "representation" or "likeness," used by Aquinas, because of his determination to maintain at all costs that direct realism constitutes Aquinas' epistemology.

We have seen that the traditional view of Aquinas as a direct realist cannot be supported without contradictions regarding the representative role of *species intelligibilis*. According to the authors discussed above, Aquinas' rejection of *species* as the object of knowledge provides enough reasons to deny any representationalist view. However, Aquinas is eager to affirm that whatever is known corresponds to the essence of the extramental thing, not that this essence is not instantiated in the mind by the *species*. This is what can be deduced from his analysis, i.e. that from the metaphysical realism there is a congruent epistemic realism. But there are no grounds for denying that Aquinas' *species intelligibilis* is a representative mental being. Besides, all of these authors associated representationalism with a modern view, either post-Cartesian or Lockean representationalism, which is unwarranted. It is possible to have a representational view that maintains epistemic realism, as we will be seen in the third chapter of this dissertation. But first, we must turn to a group of authors who implicitly or explicitly support a view in which the *species intelligibilis* (as well as other mental beings) can be regarded as a representative mental being. This is the subject of the next chapter.

Chapter II

Supporters of a Different View

Attributing a direct realist view to Aquinas is rather difficult. The role of the species *intelligibilis* as a source of information concerning the extramental thing's essence confirms that Aquinas holds an epistemic realism, which plausibly corresponds to a metaphysical realism. However, to hold that the *species* is a medium of knowledge does not support the conclusion that he is a direct realist. On the contrary, that the *species* is a medium by which we know an extramental thing's essence implies that Aquinas would answer the question "how do we know" (not "what do we know") in a manner that further implies a representational view. We have also seen that what the *species*

intelligibilis represents is not the extramental thing itself, but its *form*, understood considered as essence (i.e., the *form* of the whole).

The view that Aquinas is a direct realist, because the *species intelligibilis* is ontologically identical with either the individual or the causal *form* of the extramental thing, places the supporters of the traditional view in the dilemma of trying to explain how a causal *form*, which is the principle of an hylomorphic composite, can exist in the soul. In other words, how can this causal *form* be present in the soul without *informing* the knowing substance? It is not enough to say that this causal *form* ceases to be a causal *form* due to the fact that it has been dematerialized. The spiritual and immaterial condition of a causal *form* is not the basis for an explanation of cognition, but rather an ontological mode of being of the abstracted extramental thing's *form*: it is a necessary condition of its being grasped by the soul. Indeed, a *species intelligibilis* originates in the cognition of an extramental thing, but is not causally produced by the action of the thing or its *form*, for cognition is an immanent act.¹ The *species intelligibilis* and the extramental thing's causal *form* are two ontologically different modes of being of the same essence or nature.²

In this chapter we see how Aquinas' view has been described as representationalist in various ways. First, we examine a group of authors who regard Aquinas as a direct realist, but in their own analyses unintentionally show that the *species intelligibilis* is a representative mental being or that there is an ontological difference between an individual extramental thing's *form* and the *species*, thus supporting a

¹ See above chap I, pp. 7-8.

² An analysis of the way nature exists or 'is instantiated' will follow in the third chapter, sec. 3.32 and 3.3.3.

representational view. Following this, we discuss a group of authors who tacitly regard Aquinas as a representationalist, although they remain neutral with regard to any epistemological characterization; their analyses present Aquinas as a representationalist due to the role he assigns to mental beings (concepts and *species*). Finally, we examine a group of authors who explicitly regard Aquinas as a representationalist. Some of them argue that he cannot be interpreted as a direct realist and provide justification for this position. Others do not even assume that Aquinas could be a direct realist, and, instead, devote their efforts to various problems and characteristics of his account of cognition. It is worth mentioning that some authors in the last group still hold a contemporary view of representation which, eventually, leads them to problems that are foreign to Aquinas' epistemology. In some cases, the contemporary representational view assumed by these authors leaves no room for an explanation of Aquinas as a realist.

2.1 Unintended Supporters of a Representational View

In this section we discuss a group of authors that, although holding to the direct realism of Aquinas, show how the *species* functions as a representative mental entity. They do not explicitly advocate direct realism, but they nonetheless carry out their study within the framework of what we have called the "traditional view." Thus, they painstakingly try to match the representational view, resulting from their investigations, with the presupposition that Aquinas is a direct realist. In any case, we are interested in extracting clear substantiation to support the view that the *species intelligibilis* is a representative mental being, and that it is ontologically different from an individual extramental thing's *form* as well.

Joseph Moreau

Moreau is primarily interested in the role of intellection in cognition, but is not especially concerned with the *species intelligibilis*. Nonetheless, he offers a view about *species intelligibilis* in relation to the individual *form* of extramental things. Talking about the immateriality of the intellect, and presenting Aquinas' rejection of Platonic interpretations, he explains that

les formes des choses sensibles ne peuvent exister selon lui en dehors d'une matière, et par conséquent elles ne sont pas intelligibles en acte; elles ne peuvent donc provoquer en nous l'intellection, actualiser notre puissance intellectuelle, à moins d'admettre que notre intellect n'est pas seulement une capacité réceptive, une puissance toute passive, mais qu'il y a en lui un pouvoir actif, qui a la vertu d'actualiser les formes intelligibles qui sont in puissance dans les choses matérielles, données aux sens et reproduites dans l'imagination, de les rendre intelligibles en acte, c'est-à-dire assimilables par l'intellect en tant que réceptacle immatériel.³

The above paragraph, though primarily concerned with the agent intellect, shows that an individual extramental thing's *form* cannot be equated with an "intellectual *form*" or *species intelligibilis*. Both, the need for an agent intellect and the rejection of pure passivity in the intellect are linked with a lack of causal effect by the *species*. Moreau distinguishes two *forms*, one is the individual *form* of a thing, the other an abstracted intelligible non-causal *form*. Individual *forms* do not "cause" the *species intelligibilis*, and their ontological statuses are different: individual *forms* of extramental things are not intelligible *per se*, because they are *formal* parts of hylomorphic composites, whereas the

³ (53-54) "The forms of sensible things cannot exist in themselves outside of matter; as a consequence, they are not intelligible in act. Thus, they cannot trigger intellection in us, nor actualize our intellectual potency, unless we admit that our intellect is not only a receptive capacity, a completely passive potency. Conversely, it has in itself an active power, which has the power of actualizing intelligible forms that are there in potency within material things. These forms, given to the senses and reproduced within the imagination, are rendered intelligibles in act, i.e., able to be assimilated by the intellect as an immaterial repository."

intellect abstracts essential *forms*, which are intelligible in potency, in order to make them intelligible in act.

Consistent with Aquinas' view, Moreau affirms that there is a representation of an extramental thing by the faculty of common sense, which reassembles the information provided by the external senses.⁴ He also assigns a representative function to the imagination (as long as it represents an individual extramental thing): from reconstructed images (phantasms), the agent intellect abstracts a hidden "real" nature of things (essence) and constitutes a *species intelligibilis*. (59-60) After reaffirming that the identification between knower and known corresponds to the identification between intellect and *species*,⁵ Moreau does not hesitate to state that "l'espèce intelligible, reçue par l'intellect, n'est pas la chose même, mais une ressemblance de la chose."⁶ Taking into account that he acknowledges the function of the faculty of common sense, Moreau may use the term 'thing' to refer to an extramental thing's essence, which is the source of universal knowledge: Aquinas' likeness, a *species intelligibilis*, represents indirectly an extramental thing and directly its essence.

Despite the fact that Moreau acknowledges the distinctive function of the *species*, he does not regard it as the object of intellection, but only as a medium by which the object is known. He focuses on Aquinas' reaction against Platonic Idealism, but at the same time does not make any explicit comment in favor of or against his representationalism. Yet, while speaking about the infallibility of first apprehension in

⁴ (57) We saw that the common sense reconstructs the information received by external senses, which in an unrefined manner represents the essence of the extramental thing (or the essence of any of its accidental features). See above chap I, pp. 11-12, especially n. 21. See also Ryan, chap. II, p. 80.

⁵ For the identity between knower and known, see above chap. I, n. 59, and chap. III sec. 3.3.3.

⁶ (62) "The intelligible *species* received by the intellect is not the thing itself, but a likeness of the thing."

recognizing essences, he says: "...la connaissance ne se constitue qu'au moyen de jugements concernant des objets considérés comme extérieurs à nous, comme des choses distinctes de leur représentation en nous..."⁷ Representations here are not explicitly referred to the *species intelligibilis*, although Moreau acknowledges that judgments are based on mental words which, eventually, come from *species*.

In conclusion, had the problem of representationalism been part of his agenda, Moreau would probably not have described Aquinas as a representationalist. However, he acknowledges ontological differences between *forms* existing either in mind or in extramental reality. The main point for our discussion is Moreau's explicit recognition of this ontological difference between the extramental thing's *form* and the *species intelligibilis*.

François-Xavier Putallaz

Putallaz is concerned with the problem of mental reality in the intellect's reflection; hence, he does not particularly address extramental cognition, which he regards as a previous stage of reflexive consciousness. Because he assumes that there is a standard version of Aquinas' epistemology,⁸ he seldom comments on Aquinas' ordinary acts of cognition concerning the mental representation of extramental things. Still, after reconstructing his view, we can see that he accepts differences between extramental things and mental beings.

Putallaz implicitly regards Aquinas' *species intelligibilis* as representational, in spite of his denial that the use of the term 'representation' is appropriate in the

⁷ (79) "Knowledge is just the manner in which judgments refer to objects regarded as external to us, as things distinct from their representation in us."

⁸ Cf. 126, n. 32. He quotes Joseph Moreau's *Connaissance* as an average account of the act of cognition. In the same way as Moreau does, he implicitly acknowledges that Aquinas present a representational view, but he does not use this label to describe him.

description of the *species*. He maintains that “...l’acte de pensée n’est pas appréhendé comme un quelconque objet de la connaissance, c’est-à-dire par l’intermédiaire d’une représentation intentionnelle.”⁹ In addition, he makes an important distinction when he examines the soul as an object of knowledge. While analyzing the intellectual soul, both as the body’s *form* and as an object of knowledge, he distinguishes the soul (1) as an intelligible entity (able to be grasped by the intellect) (2) as well as an intellected being (the object of knowledge):

...C’est qu’il faut distinguer deux *niveaux* d’actualisation: l’un d’ordre ontologique, l’autre d’ordre cognitif ...l’âme est un acte, et comme telle elle est la forme du corps et son acte substantiel premier; elle est donc essentiellement *intelligible*. Elle n’est cependant pas encore *intelligée en acte*, c’est-à-dire en acte second, parce qu’une telle opération requiert le truchement de l’objet et de la *species* signifiante.¹⁰

The soul, (1) as an actual being (first actuality), is the causal *form* of the composite; but, (2) as a known thing or object of knowledge, it exists in the mind in a different mode. Like any other known extramental thing grasped by the intellect, the soul becomes an intellected being, thus, implying a second actuality. In this act of intellection, Putallaz recognizes the function of the *species* as the “means” of knowing the extramental thing (in this case, the soul). This “thing” (the soul as the object of knowledge) cannot be directly or intuitively known because, like any other extramental thing that exists, it is only known by the intellect in a way which is suitable to it, i.e., as an immaterial and spiritual. This is a very important point, because one could have assumed that knowledge of the soul, which its own causal *form*, does not require any

⁹ (113) “The act of thinking is not apprehended as any other object of knowledge, i.e., by means of intentional representation.”

¹⁰ (77) “...It is necessary to discern two *levels* of actualization: one, of ontological domain, the other of cognitive domain ...the soul is an act, and as such it is both the body’s form and its first substantial act; it is therefore essentially *intelligible*. However, it is not yet intellected in act, i.e., in second act, because such an operation requires the means of an object and the significant *species*.”

abstractive act, or any sort of representative *species*, in order to be known. In other words, one could have assumed that humans could grasp their own *form* in its natural state, directly, and have it in the intellect as such.

Nevertheless, this is not the case because the soul is a *formal* cause, which exists as a first actuality. It is true that our knowledge is based on an extramental thing's essence, which is a nature instantiated as an extramental thing. However, Putallaz affirms that we cannot know a causal *form* as such, but only as a universal likeness in the mind: "Dans l'ordre de la causalité formelle, l'intellect atteint la forma universelle et quidditative de la chose extra-mentale..."¹¹ The intellect does not know its soul as (1) a primary act (the causal *form* of the body) but only as (2) a secondary act (the universal essence, "human soul"). The soul is only known conceptually, by its definition, as the "cause of the body;" it is not known directly as causal *form*, but as the essential *form*. The way in which the intellect knows a soul reveals an ontological difference between (2) the "soul known" in *species intelligibilis* and (1) the "soul existing" as extramental body's *form*. One could wonder why the intellective soul cannot know itself reflexively as an acting cause (as the causal *form* of the body): the answer lays in the impossibility that any extramental thing's causal *form* can be grasped as such. Our intellect only grasps the extramental thing's *form* as an essence, not as causal *form*.

Consequently, Putallaz regards the *species intelligibilis* as the only means by which extramental things can be grasped by the mind. He explains this while he analyses the knowledge of the soul in the act of reflection. It is useful for our purposes here to appreciate the way in which he conceives of the knowledge of the passive intellect as a

¹¹ (120) "Within the domain of formal cause, the intellect turns its attention to the universal and quidditative form of the extramental thing..."

reflexive act, which corresponds to the ordinary way in which we know any other extramental thing:

... L'intellect possible est l'intelligible comme toutes les autres choses, not par essence, mais par le truchement d'une *species*... Cette *species* est bien une détermination formelle de la chose extra-mentale elle-même: l'acte de l'intellect et l'acte de l'intelligé sont un seul et même acte, comme l'acte du sens et celui du senti ne font qu'un ... c'est pourquoi il est possible d'affirmer que la réflexion est l'intellection même de la forme de la chose extra-mentale, mais selon ses nouvelles conditions de réalité intelligé.¹²

Putallaz refers here to an intellection of "the extramental thing's *form*;" does he mean the individual extramental thing's *form* or the *form* considered as essence? In any case, he refers to this *form* as having "its new reality." This new reality makes whatever is in intellection (*species intelligibilis*) a being ontologically different from the extramental thing's causal *form*.¹³ Again, we notice the necessity of the use of the term *species* in order to know extramental things (the passive intellect in his case). This is explained by the difference in *forms* found in both natural and mental beings, which respectively match with the difference between the extramental thing's causal *form* and the *species intelligibilis* (as the *formal* determination of the intellected extramental thing). But Putallaz goes further, saying that

c'est pourquoi l'intellect humain voit toute chose par cette *species* empruntée, et not par son essence; il s'y repose en quelque sorte comme en un intermédiaire intérieur, avant de progresser tendancielllement vers la chose extra-mentale qu'il veut atteindre. Toute connaissance et toute conscience actuelle passent par ce biais qu'est la *species* abstraite des

¹² (158-9) "...The possible intellect is intelligible like every other thing, not through its essence but by means of a *species*... This *species* is a formal determination of the extramental thing itself: both, the act of the intellect and the act of the intellected are one and the same act, like the act of the sense and the sensed are only one ... that is why it is possible to affirm that reflection is the same as the intellection of the extramental thing's *form*, but according to its new setting of an intellected reality."

¹³ Or, if he refers to the individual *form* of the composite which exists as natural being, he implies a new instantiation of the essence in the mind as intentional being. The extramental thing can only be known as an intelligible reality.

réalités sensibles et des phantasmes, et l'intelligence puise réflexivement à cette source, principe actuel de rencontre entre l'être et l'esprit, afin de reprendre en quelque sorte son élan qui l'ordonne naturellement à l'être l'extra-mental.¹⁴

This eagerness to deny direct cognition of the extramental thing's essence can even make Putallaz's view of Aquinas appear to be a form of a modern idealism. The essence in itself cannot be known, but only by an intermediary *species*. This, however, is not the intention of the French author. He indicates that the goal of the intellect is the knowledge of extramental things: "En réalité, dans tout acte de la connaissance, il n'y a pas d'objet autre que la chose extra-mentale..."¹⁵ What he means, then, is that the extramental thing's essence cannot be known as it is instantiated in sensible reality, but only as a likeness via *species*. The conditions in which the thing can be grasped by the mind imply that a knower cannot "posses" the thing's essence but only a *species*, which functions as intermediary. "...l'intellect possible... (n'est) jamais actualisé que par une *species* qu'il n'a pas originellement en lui-même mais que, dans l'exercice de son activité, il emprunte à l'être extra-mental..."¹⁶

We will see that the essence is instantiated as an individual thing, as produced by its causal *form*:¹⁷ the causal *form* causes the thing to exist as an instance of nature. We can know the essence as a universal, presented by the *species intelligibilis* in the mind, but we cannot directly know the extramental thing's causal *form*: this is the principle of

¹⁴ (159-160) "...For this reason the human intellect perceives everything by this borrowed *species*, and not by its essence. It hinges, it may be said, on an internal intermediary, before it proceeds expectedly toward the extramental thing that it heeds. Every actualized knowledge and consciousness passes through this means, which is no other than the abstracted *species* from both sensible realities and phantasms. And the intelligence has reflexive access to this source, actual principle for the gathering of being and soul, in order to bring back, in some way, its vim which naturally align it toward the extramental thing."

¹⁵ (111) "In fact, through the entire act of knowledge, there is no other object than the extramental thing."

¹⁶ (74) "The possible intellect ...is never merely actualized by a *species*, which is not originally stored in itself, but which is borrowed, by its own activity, from the extramental thing..."

¹⁷ See below chap. III, sec. 3.2.2.2.

an individual composite. Therefore, what Putallaz acknowledges, as grasped by the mind, is the thing's essence, not the extramental thing's causal *form*, nor the individual composite's *form*. When he says, as quoted above, that the mind only knows the universal and quidditative *form*, he implicitly distinguishes it from the individual extramental thing's *form*. Thus, our knowledge of individuals is limited and imperfect:

L'homme jouit ainsi d'un pouvoir de connaissance indirecte et imparfaite du singulier; en aucun cas il ne peut prétendre à une intuition intellectuelle, directe et immédiate; cela tient à son statut d'esprit incarné, avec ses grandeurs et ses limites...¹⁸

All things considered, Putallaz conceives Aquinas's cognition in terms of realism as well as representationalism. On the other hand, Aquinas should be described as a representationalist because he implicitly assigns to the *species intelligibilis* the role of a necessary means for knowing the extramental thing: in his analysis, Putallaz even denies an apprehension of any individual extramental thing's *form*. Furthermore, according to Putallaz, Aquinas not only insists that knowledge must be exclusively directed toward the extramental thing, but he also emphasizes the likeness of the thing as a necessary condition for knowledge: "La similitude n'est pas une chose, ni une représentation qui serait comme indicative d'elle-même: elle est épanchement vers l'autre, puisque c'est la chose intelligée qui est la forme de l'intellect."¹⁹

This realist approach is joined, nonetheless, with a denial of representation: Putallaz explicitly rejects the use of the term 'representation' for *species*, because he

¹⁸ (121) "Accordingly, men exhibit both an indirect and imperfect power for knowing the particular; at any rate, they cannot long for a direct and immediate intellectual intuition. This is exclusively the status of an incarnate soul, with its own excellence and limits..."

¹⁹ (186) "Likeness is neither a thing nor a representation which would be like aiming at itself: it is an effusion toward the other, because the intellected thing is the intellect's form."

holds the traditional view. He rejects ‘representation’ despite an implicit use and recognition of the term throughout his analysis. Why is this so? He states:

J’évite une nouvelle fois tant que possible le terme de « représentation », car la connaissance n’est pas re-présentative au sens où l’intelligence produirait en elle une sorte de réalité diminuée (*esse diminutum, esse apparens, esse objectivum, esse representativum*, etc.); en fait, il n’y a de représentation au sens propre que dans une philosophie qui considère un *contenu* de conscience; mais l’intelligence n’a pas de contenu; elle est vitale unie à son objet dans l’acte de la connaissance, c’est-à-dire dans son exercice. Le terme de « représentation », qui laisse trop présager d’une philosophie quidditative, risque de conduire d’emblée à l’impasse idéaliste de la philosophie cartésienne et des ses avatars.²⁰

Putallaz’s concern is with modern idealism. Representationalism is viewed as the proper intellectual instrument of post-Cartesian thinkers, despite the constant use of this term by medieval philosophers, including Aquinas. He refers to the modern standard conception of representation, in which the content is epistemologically independent of the extramental reality. But not all representations are required to be conceived of in that way. According to the view of ‘representation’ offered in the first chapter,²¹ there is no epistemological difference between the content of a realist representation and the essence (or the essence of the features) of an extramental thing. The only thing that differentiates direct realism and realist representationalism is the mediation of the *species*. And Putallaz explicitly accepts this mediation. This, and the fact that he acknowledges the ontological difference between the extramental thing’s causal *form* and the *species intelligibilis*, details two important steps forward for supporting representationalism.

²⁰ (176, n. 209) “I again stay away from the term “representation”, because knowledge is not re-presentative as much as possible in the sense that intelligence would produce a sort of diminished reality (...); indeed, there is representation only in the literal sense in a philosophy which take into account the content of conscience. But the intelligence does not have content; it is essentially united with its object during the act of knowledge, i.e., during its performance. The term “representation,” which notably ceases to be a sign of a quidditative philosophy, risks at once leading the way to the Cartesian idealist impasse and its quandaries.”

²¹ See above p. 17 and ff.

Bernard Lonergan

Lonergan is primarily concerned with the *verbum mentis* or inner word, which is defined as a product, an effect, and an expression of the cognitive content of an act of understanding (22-24). Although he gives a detailed account of both intellective and cognitive acts in such a way as to imply a realist representationalism, he does not explicitly address the issue whether Aquinas is a representationalist or not. Nevertheless, he establishes a distinction between the extramental thing that is known and the variety of mental beings which stand for it in the mind. These beings, such as *species intelligibilis*, inner word, *conceptio*, phantasm etc., are carefully analyzed in his scrupulous study, along with a detailed analysis of abstraction. Our interest, thus, lies on the “standing” relation between these mental beings and the extramental thing.

To begin with, Lonergan affirms that the difficulty of Aquinas’ epistemology resides in the fact that it has hardly been studied in its own epistemological terms: “Aquinas was speaking of understanding and that interpretation in terms of general metaphysics misses the point.” (24) Accordingly, an analysis of his theory of science is the key element in understanding the distinction between mental beings and extramental things. *Intelligere*, within this epistemological framework, means to understand the universal, to grasp the whole essence of an individual quiddity, but not the *species* itself.²² Neglecting an ontological view about cognition, however, does not dissuade Lonergan from studying the function of *species intelligibilis*; on the contrary, this view

²² He translates *Intelligere* as understanding and/or insight: “He repeatedly affirmed that the *quod quid est* is the proper object of the intellect, and his affirmation carried with all the implications of the Aristotelian ideal of science. A definition always rests on prior knowledge; to know the quiddity, to define, to conceive the form of the thing, are identified...” (48) “Whatever the intellect knows, it knows through the *quod quid est* which is the substance of the object: just as whatever is known by sight is known through color, so whatever is known by intellect is known through the *quod quid est*. What cannot be known by intellect in that manner cannot be known at all.” (49)

concerning scientific “insight” into quiddity shows the way to appreciate the role of the *species*. In the Aristotelian-Thomist account of knowledge, one thing leads another: “Grasping the cause [of an eclipse] is not an ocular vision, but an insight into the sensible data. Grasping the universal is the production of the inner word that expresses that insight.” (27) The main point is to see the epistemological and scientific rationale (how to grasp universals), not the ontology of the intellectual act of knowledge.

In Lonergan’s view, the question of truth and science loses its direct dependence on concreteness. Following Aristotle, Aquinas affirms that universal knowledge is the aim,²³ and from the point of view of science, reality is a construction of the mind, in spite of the fact that all knowledge of the extramental thing is based on an objective *ratio*.²⁴

The universal *ratio* or object of thought known by means of the inner word is not subjective but objective... but though it is objective, still is universal, and all reality is particular; accordingly, its immediate reference is not to the thing except potentially, inasmuch as a reflection and the use of sense enable one to apply the universal *ratio* to particular things.²⁵

With this explanation, Lonergan seems to take a new direction leaving behind realism, not just in the direction of modern representationalism, but towards idealism. A known extramental thing provides the object of thought, no doubt; yet, this object is a mental being created by the intellect.²⁶ Nevertheless, Lonergan does not imply an idealism at all: the purpose of knowledge is to grasp the essence, and what he means is

²³ “...Aquinas settles a recurrent antinomy of Aristotelian thought: science is of universal; all reality is particular; therefore science is not of reality.” (165)

²⁴ “White and black are outside the mind, but the ‘ratio albi’ is only in the mind [*In VI Metaphys.*, lect. 4 #1230]. To close the circle, one has to recall that the divine ideas, as principles of production, are exemplars, but as principles of speculative knowledge, properly are named ‘ratio.’ [*ST* 1a 15, 3 c]” (20) “Reason is the criterion and, as well, it is reason—not the sense of reality—that gives meaning to the term ‘real.’ The real is what it is; and ‘what is’ is known in the rational act, judgment.” (20)

²⁵ (166) It is worth mentioning that the terms ‘object’ and ‘objective’ are not used here in the contemporary sense of the term (that is why “objective” does not automatically equal “universal”. By objective we must understand “object of the mind” and by subjective “substantial.” For more, see chap. III, sec. 3.1.4).

²⁶ He acknowledges being previously charged with idealism because of this view. (166)

that this task is performed indirectly, in view of the fact that knowledge occurs via an immanent process.²⁷ In epistemological terms, true and false are in the mind, and that they are established by the mind with reference to the extramental reality:

The final object of the intellect is the real; the real is known through an immanent object produced by intellect, the true; the true suppose a more elementary immanent object also produced by the intellect, the definition. (150)

Although Lonergan establishes that Aquinas' epistemology is about the "real" (the extramental thing), we can see that a distinction between extramental things that are known and mental beings is upheld; the latter stand for the former in the mind (they are the immanent objects produced by the soul: the *species*). In order to proceed with his analysis concerning the role of the *species intelligibilis*, we must understand the outcome of Aquinas' act of abstraction. During abstraction, basically, individual conditions of the extramental thing are suppressed:

...But there is always some abstraction; for the 'here and now' of sensible presentation or of imagination is never relevant to any understanding. The Aristotelian and Thomist theory of abstraction is not exclusively metaphysical; basically, it is psychological, that is, derived from the character of acts of understanding. (56)

...It is common to all science to consider the *per se* and disregard the *per accidens* ... The theorem on abstraction from individual matter is a theorem with respect to all our acts of understanding, to the effect that 'here and now' always pertains to the sensible residue and never enters into the relevant, the essential, that is the abstracted. (54)

The ontological difference between mental beings and extramental things can be noticed during the act of abstraction: the individual sensible-temporal thing becomes a universal mental being. According to Lonergan, the Thomistic act of abstraction consists basically in "peeling" the individual "layers" of concretion, from specific individuality to

²⁷ For immanency in the act of knowledge see above chap. I pp. 7-8.

generic universality, leaving out first designated matter, then common matter and, finally, reaching the abstracted immaterial *form*, or essence.²⁸ During this abstractive act, he identifies two types of mental beings (produced by the intellect) which correspond, respectively, to two different types of abstractions:²⁹

In this section we consider the abstraction that supposes the formation of an inner word and yields knowledge of ‘*rem ut separatam a conditionibus materialibus, sine quibus in rerum natura non existit.*’ In the next section we shall consider a prior apprehensive abstraction, already described as insight into phantasm; its object differs modally from the object of formative abstraction, for by it man knows not the abstract object of thought, the universal that is common to many, but the universal existing in the particular, the ‘*quidditas sive natura in material corporali existens.*’ (162-3)³⁰

These mental constructs correspond respectively to the inner word and the *species intelligibilis*.³¹ Lonergan believes that these two different types of abstraction take place at the same time but, ontologically speaking, the creation of *species intelligibilis* (apprehensive abstraction) precedes and makes possible the creation of the inner word (formative abstraction).³² The inner word is related to definitions, concepts, as well as the capacity of true and false judgments. The inner word is the object of thought when we refer to the extramental thing:

...It supplies the object of thought. What is abstract, what is true or false is not, as such, either a real thing or a mere copy of a real thing. It is the product of the mind. It is not merely a product but also a known product; and as known, it is an object. (18)

²⁸ It seems clear that he understands *form* here as the *form* of the whole, the quiddity or essence.

²⁹ Lonergan also distinguishes three degrees of abstraction from the epistemological view: general cognitive, mathematical and metaphysical; we are concerned, though, with the different types in the ontological description of the act of knowledge, namely apprehensive and formative abstractions.

³⁰ Quotes from Aquinas: (SCG I 53 § 3) “The thing as separated from the material conditions without which it does not exist in the natural world.” (ST 1a 84, 7c) “Quiddity or nature existing in corporeal matter.”

³¹ Lonergan not only specifies the distinction between *species* and inner word, but also he mentions a third type of intellectual *species* which correspond to a higher intellectual process of thought [On these three species: *species quae*, *species qua intelligitur* (*intelligibilis*), *species in qua*, cf. 176-7]. We are interested only in the prior type of *species* and/or the first degree of cognitive act.

³² Cf. 22-24 and ff.

As such, Lonergan calls the inner word “a medium” by which we deal with the world in epistemological terms.³³ The inner word is the instrument by which we think the universal;³⁴ the *species intelligibilis*, on the other hand, is the basic constituent which supplies information to, and provides the possibility of, an inner word.³⁵ In order to reach a level of conceptual thought, we need to know universal natures, which are accessible through the *species intelligibilis*.³⁶ In view of this, *species*, as a result of the basic and primary cognitive abstraction, presents the universal to the mind, but only as it is contained in the individuals:

...Prior to knowledge of essences without existence through definitions, there are insights into phantasm in which are known universals, natures, [and] quiddities existing in corporeal matter; and as such insight governs the formation of meanings and definitions, so also it governs the application of them to particular things. (166)

In this sense, Lonergan regards *species* as the basic blocks of our intellective and cognitive processes. The information that they provide comes from extramental things, but not directly: it comes via the senses and the imaginative faculty. Following Aquinas, Lonergan insists on the impossibility of knowing extramental things or properties without

³³ “...The inner word is a medium between the intellect and the things that are understood.” (21)

³⁴ “...Intellect understands in two manners: formally by the species actuating in it; instrumentally by the inner word it employs to know the thing.” (166)

³⁵ “...So there is a contrast between the form which is the principle of the act of understanding and the thought-out form of a house which is the term of the act of understanding and, as it were, its effect; similarly contrasted are the *species* which is the form that actuates the intellect and its principle of action, the action of the intellect, and the inner word which is term to the action and, as it were, something constituted by it.” (136)

³⁶ “[The proper object of human intellect] is the *quidditas rei* which is not separate from the thing, as the Platonist held, nor apart from sensible things, even though intellect apprehends it without apprehending the individual conditions it possesses in sensible things ...its ultimate ground is the Aristotelian principle that quiddities and particulars must be identical (at least inadequately) if the former are to be realities and the latter are to be objects of sciences.” (169)

the intellect performing a “conversion” to phantasms.³⁷ Does all of this imply a representative cognition? In the words of Lonergan, we must answer “yes:”

Now, just as human intellect is mainly reason, because it operates from sense as a starting point, so the quiddity known by the human intellect is different in kind from that known by the angelic. The angel has no senses, and so his acts of understanding cannot be insights into sensible **represented** data; they must be pure acts, though limited, of understanding. (45, our emphasis)

There are two classes of intelligibles and two modes of understanding: what is in itself intelligible is the direct object of the intellects of separate, spiritual substances; but what is not in itself actually intelligible but only made intelligible by agent intellect, namely, the material and sensible, is understood by intellect directly only inasmuch as it first is apprehended by sense and **represented** by imagination, and illuminated by agent intellect. (179, our emphasis)

In connection with the distinction between mental beings and extramental things, these texts, and especially their conversion to phantasms, clearly imply that our intellectual cognition, even at the basic stage of *species intelligibilis*, is representative. Not only do we have to turn to phantasms, but also the information collected by the senses already represents features of the extramental thing. Consequently, after admitting that there is an ontological difference between the *species intelligibilis* and the extramental thing that is known, as well as affirming that the *species* represents it, Lonergan would have described Aquinas as a representationalist.

Nonetheless, this is not the whole account. Lonergan notices the ambiguity in the use of the term ‘*species*:’ it could stand either for (1) the *form* or for (2) the universal.³⁸

³⁷ “According to the *pars prima* intellect must convert to phantasm to know its proper object which is still the quiddity ... How can what is known not only directly but also first nonetheless be known only by a conversion to phantasm?” (169-70) “In a word, one cannot understand without understanding something; and the something understood, the something whose intelligibility is actuated, is the phantasm.” (42)

³⁸ “It may mean a form, and then it includes neither common nor individual matter; and it may mean a universal, and then it includes common but not individual matter. In cognitional contexts, *species* occurs in both senses... to determine in which sense the term *species* is employed is not always... easy... However,

As a universal, (2) the *species intelligibilis* is the *species quae*, identified in an epistemological context with the inner word. Thus, as a universal, it is conceived as the abstracted *form* of a composite extramental thing plus common matter: the quiddity. But, as a mental *form*, (1) the *species* turns out to be nothing else than the extramental thing's "intelligible unity:"

Forma intelligibilis would seem to be, at least normally, the specific intelligible unity. *Quidditas rei materialis* is the intelligible unity plus common matter; primarily, is the quiddity of substance; but it is sound Aristotelian doctrine to speak of the quiddities of accidents. *Species* has both the meaning of form and the meaning of quiddity. (187)

This distinction shows that Lonergan differentiates (2) *form* considered as essence or quiddity, the *form* of the whole, which includes common matter expressed in the definition, and "*form*," (1) which does not include any kind of matter.³⁹ Both *forms* should be nothing more than intelligible structures, natures. But he also states that what is grasped with apprehensive abstraction is the likeness of the individual extramental thing's *form*.⁴⁰ This likeness is not a representation, but the *mere copy* of the individual *form*, abstracted from its specific material conditions, as an "immaterial potency."⁴¹ Thus, Lonergan seems to regard "*form*" alone, in the mind, as a copy of the individual *form* of the sensible composite. He believes that this strict similarity is a necessary condition for

our criteria may be extended: a form is known only by metaphysical analysis; but the universal enters in the knowledge of everyone." (133)

³⁹ Here Lonergan makes a distinction based on different levels of abstractive mental acts: on the one hand, there is the quiddity of the substance (man) and, on the other hand, is the "pure" essence (*humanitas*). We are not interested on this difference now, but it is worth mentioning that this explains his belief that the *species intelligibilis* matches the extramental thing's causal *form*: they are both instantiations of the nature. However, Lonergan fails to distinguish the ontological difference between these instantiations.

⁴⁰ "...Metaphysically the form whence [apprehensive abstraction] proceeds must be received universally, immaterially, and immovably... Such a form is not the essence itself of the soul but an immaterial similitude of the form that is received materially in the known thing. (176)"

⁴¹ "...Not only is the matter of the agent not transferred to the recipient, as the gold of the seal is not transferred to the wax; not only is the form of the agent not reproduced in matter natural to it, as in sensation; but the form of the agent object is received in a strictly immaterial potency, the possible intellect." (160)

the identification between knower and known.⁴² This similarity between the *species* and the extramental thing's *form* is the condition for maintaining Aquinas' ontological realism:

On the metaphysical side, because the material thing has an intelligible component, form, it follows that what is known by understanding is real and not merely ideal as materialist, idealist, and pseudorealists are prone to assume. Again, because the thing is form and matter, there is a possible knowledge of the thing by abstraction of form from matter. Further, because matter is a principle of limitation, so that form of itself is universal, the abstract knowledge will be universal. (186)

Consequently, despite the fact that Lonergan reminds us of the metaphor of the mirror as the paradigm of representational cognition,⁴³ the assimilation of the same individual extramental thing's *form* by the intellect produces an ill-defined representational view of the *species*. We have seen, in the first chapter (pp. 20, 21), that direct realism seems to be suitable for an interpretation whereby the *species intelligibilis* is a copy of (or, for some, "contains") the individual extramental thing's *form*. Thus, if the same individual *form* of an extramental thing is in the mind, what is to be represented?

The representational knowledge that Lonergan describes is a necessary consequence of the ontological mode of being of both *species* and inner word with respect to causal *forms* of extramental things.⁴⁴ Epistemologically speaking, the *verbum mentis* is representative because it "means" the extramental thing itself, and because it

⁴² "As the thing is the thing it is in virtue of its form or species, so too the knowing is the ontological reality it is in virtue of its own form or species; further, unless the form of the thing and the form of the knowing were similar, there would be no ground for affirming that the knowing was knowing the thing." (159)

⁴³ "...For sense directly knows the sensible object, but intellect directly knows not phantasm but the thing that phantasm represents; accordingly, insight into phantasm is like looking *in*, not looking *at*, a mirror." (174)

⁴⁴ Again, "...Intellect understands in two ways: formally by the species actuating in it; instrumentally by the inner word it employs to know the thing." (166)

takes place within an epistemological dimension: the same extramental thing's essence rules the act of knowledge on every level:⁴⁵ *species*, inner word, concept and definition. But a seeming inadequacy of individual and universal essences results in the way in which science works: we only know the universal, and so the inner verb (universal) "represents" the thing (individual). Lonergan assumes that the representational role of mental beings is linked to the human impossibility of grasping the extramental thing as such; the only thing that can be grasped is the essence or quiddity.

Nevertheless, in his reluctant ontological account, he identifies the *species qua intelligitur (intelligibilis)* as identical to the individual extramental thing's *form*, but with lesser individual conditions (both concrete and common matter). It is clear that Lonergan recognizes the ontological difference between the modes of being of a *species* and an individual extramental thing's *form*; and that he describes the representative character of the *species* as well. The restraint in qualifying the *species intelligibilis* as a representation is not a problem for him, as long as we are talking about the logical role of a mental being (meaning and *significatio*). This recognition, however, of the *species* as a representational mental being turns out to be a problem when the ontological account is unable to display any substantial difference between them. There is no sense in saying that a representative *species* is a copy of the individual extramental thing's *form*, when it is nothing more than the identical *form* minus the material conditions. The difference cannot only reside in the suppressed material conditions, but in both the ontological role and mode of being of a composite's *form* and its cognitive likeness, the *species intelligibilis*.

⁴⁵ "...Prior to knowledge of essences without existence through definitions, there are insights into phantasm in which are known universals, natures, quiddities existing in corporeal matter; and as such insight governs the formation of meanings and definitions, so also it governs the application of them to particular things." (166)

Lonergan would offer a coherent representational role for *species intelligibilis* in his ontological account if he would assume that the connection between the *species* and the individual extramental thing's *form* is the nature itself, and they are two ontologically different beings, two instantiations of the same essence. But he fails to see this distinction in his ontological account and, as a result, he implicitly neglects the representational role of *species* in order to maintain the metaphysical realism. In this, he reads Aquinas in the same way as the authors who defend the traditional view.

2.2 Implicit Supporters of a Representational View

In this section we see scholars who do not qualify Aquinas' epistemology either as direct realism or representational realism. However, they do not hesitate in labeling most of Aquinas' mental beings as 'representations.' In most cases, they also clearly establish a distinction between the extramental thing known and its mental representation. Thus, their views support the present analyses, i.e., that Aquinas is a representationalist due to the role played by the *species intelligibilis* as a mental being.

Edmund Joseph Ryan

In Ryan's inquiry, the representative function of the *species* (conceived in general, not only as the *species intelligibilis*) is noticeable even in the first stages of the act of knowledge, i.e., sensorial cognition. As he indicates, Aquinas intends to differentiate the individual extramental thing's *form* from the sensible *species*. Thus, the first difference may be appreciated in the production of sense impressions. Describing the role of the common sense, he takes as example the perception of color. "Color has a twofold being: its natural being in the sense object; its spiritual being in the sense." (128) When one sees a color, the natural being is not grasped, because "what sees" (the sense)

is not by itself colored; what is seen is the similitude of color, an immaterial (sensible) *species*. Concerning the senses, then, a spiritual being is neither the “object” itself (the extramental thing) nor its individual *form*, which has natural existence.⁴⁶

The idea of emphasizing this spirituality of cognition makes obvious the idea that physical sensation affects material bodies, but it is not the direct cause a copy of the individual extramental thing’s *forms* as a sensible *species*.⁴⁷ What is received, as a likeness of color, is something that is not physical or material, but the *ratio essendi* of the being perceived. (133-5) In other words, it is not that the *formal* cause of the accident (the color red) causes the “coloration” of the sense organ, despite the fact that the accidental color somehow subsists in the subject: it is that there is an intelligible spiritual being conveying the essence of that color that is grasped, not as copy of its individual *form*, but as its intelligible structure (nature). Accordingly, what does the “common sense” perceive?

The common sense contacts the external sensible only indirectly and mediately through the sensible species in the organs of the external senses. If the common sense were to contact the external sensible directly and immediately, it would render the external senses useless. (137-8)

What leads Ryan to conclude that the external sense receives a *species* of an “object” (a likeness of an extramental thing) which is representative of the object? (138)

It is the role of common sense: it perceives the act of senses, and being aware of these perceptions, discriminates them in order to “reconstruct” the extramental thing.⁴⁸ In fact,

⁴⁶ We understand ‘extramental thing’ for any use of the term ‘object.’ (See below chap. III, sec. 3.1.4)

⁴⁷ See above, chap. I. pp. 7-8, for an explanation on different types of causation.

⁴⁸ This “awareness” or “perception” should be distinguished from some modern representative awareness, which is a *conscious* awareness of perceiving the representative mental being. As a consequence, the “ordinary” awareness of representationalism is epistemological but not psychological. Epistemologically speaking, cognition hinges on representational mental beings, not on mediate (and inferred) known extramental beings. This argument, called the ‘sense-datum fallacy,’ has been widely rejected. It seems

“the sentient subject perceives, assembles and distinguishes the various acts of external sense faculties.” (142) Thus,

while the common sense is perceiving and unifying and discriminating in a concrete and sentient way the operations of the external senses, it is coinstantaneously perceiving and unifying and discriminating the objective contents of the act of the external senses ... This objective unification, then consist in the assembling of the reports of the various external senses into an organized whole, so that perception of the object in external reality is possible.⁴⁹

The outcome of the common sense, namely, the operation of the faculty of sense impression (the raw material for the *phantasm*), is not directly grasped from the extramental thing, or copied from the individual extramental thing's *form*. A sense impression is reconstructed from many likenesses of an extramental thing, many sensible *species*, which already represent the thing's features. We are then two steps away from “copying” an individual extramental thing's *form* (or an accidental *form* which causes any feature of it). Sense impressions are representations from which an image of an extramental thing, and later an intelligible *species*, is drawn. In this way, Ryan explicitly acknowledges Aquinas' representationalism at the level of the senses and the common sense. But his research does not go beyond the function of common sense, so there is no

obvious that we do not need to be *consciously* aware of our ideas to know external reality: “One should reject the assumption that the object of perception has to exist at the moment we become perceptually aware of that object. Perception is a causally mediated process, and causation takes time. Because of this, at the time when perceptual processing is complete, the features of perceived objects may be distinct from those possessed by the object at the time when their causal engagement with our perceptual apparatus began. As said, in extreme cases the objects of perception may no longer exist at the moment when the causal process of perception is complete. One should, therefore, accept that all the events we perceive are to some extent in the past.” (O'Brien, sec. 2) “...The crucial assumption that qualia can occur only consciously ... shares the usual multiple ambiguity of “conscious” ... representation can occur without its subject's being aware of it, and/or without the subject's introspecting it. But if we then understand the tacit assumption in the same way, it would be independently rejected by most representationalist, who already hold that a (first-order) quale can occur without being noticed by its host.” (Siewert, sec. 4.3)

⁴⁹ (143) Elders agree with this description of the common sense's synthetic activity. (206)

explicit reference to a *species intelligibilis*. Nonetheless, it can be cogently surmised that, for Ryan, the act of cognition according to Aquinas is representational.

M. C. D’Arcy

D’Arcy specifically discusses the cognitive act in Aquinas’ epistemology. The relevant question here, which D’Arcy wants to answer in reference to concepts, is “why does St. Thomas insist on these intermediaries”⁵⁰ that characterize his account of the act of knowledge? Before answering this question, he acknowledges Aquinas’ metaphysical realism, as well as the role of the *species* as the means of cognition in knowledge:

The species or form or likeness is not known primarily; it serves as a medium quo or in quo the real object is apprehended. There is no question, therefore, of a comparison of a likeness first known with an original. We know the original, and it is in a reflective act that we are aware of the medium which is the form. (62)

At first glance, D’Arcy seems to regard Aquinas as a direct realist. But if this were the case, why would he still worry about the use of intermediaries? Because a mental *form* is a medium which is not equivalent to an extramental thing’s causal *form*: “knowledge is direct and nevertheless by means of concepts.” (61) Thus, the first answer to the question is based on the difference between mental and individual extramental *forms*: we need concepts because of the absence of intellectual intuition (of the angelic sort).⁵¹ Knowledge is about universals, although the subjects we know are sensible individuals. (66) The relevant feature of D’Arcy’s analysis is that it does not matter whether he uses the term ‘*form*’ or ‘*species*:’ whatever is in the mind, is not the same kind of being as the individual *form* of the extramental thing: neither an identical

⁵⁰ (63) D’Arcy does not pay too much attention to the difference between *species* and concepts. He treats both just as mental beings.

⁵¹ D’Arcy’s second answer is that concepts are necessary because of the immanence in knowledge. This reason also support the view that whatever is inside the mind is different than what is in the sensible realm. For immanency in cognition see above chap. I, p. 9.

reproduction, nor a copy of its *formal* cause. For him, Aquinas is a real representationalist in the sense explained in the first chapter. In fact, he claims that, due to the immanent character of the act of knowledge, there is a certain “idealism” in Aquinas. (68).⁵² But when D’Arcy denies that the *species* is known primarily, as Aquinas does, he fails to distinguish the mental being of the *species* from the information received by it, the knowledge of the extramental thing. However, as soon as he returns to the ontological analysis of mental beings, he explicitly acknowledges the distinction between them and extramental things, as well as the representative role of the former.

Marcia Colish

Colish does not openly describe Aquinas as a representationalist, but she explicitly denies that he is a direct realist in epistemology. Indeed, she denounces and criticizes what has been called here the traditional view among Aquinas’ scholars:

Most commentators, however, place Thomas in Aristotle’s epistemological universe, and do not shrink from attributing to Thomas Aristotle’s unbounded confidence that the world is totally intelligible and that the human mind is perfectly adequate to it. (170)

In contrast to the blandly objective realism which is frequently attributed to him, Thomas makes it perfectly plain that intellectual signs, however far advanced on the road of demonstrative knowledge they may be, are different from their objects. Men, he sates, do not know natural objects accessible to the senses, since they have made and can make mistakes about them. (175)⁵³

Thus, Aquinas is not analyzing a simple direct realism whereby human beings can easily grasp the essence of extramental things. Knowledge, for him, is not a copy of an extramental reality. Colish’s interpretation is supported by the view that there is a

⁵² See about “immanence” in chap. I, pp. 7-8.

⁵³ She quotes *CT* II 18 and *SCG* IV, 1 § 3. She previously referred to the infallibility of the apprehension of quiddities, and she points out that misapprehensions may happen due to a possible physiological malfunction: “falsity occurs only accidentally, when the object happens to resemble something that is not.” (172)

distinction between extramental things and mental beings. Her study deals with the way in which medieval authors use mental signs or symbols: any thought or mental being is a sign/symbol, and there is no difference between intellectual *species*, ideas, mental words and imaginations. Nonetheless, she denies that mental signs (of any kind) are the same as an individual extramental thing's *form*.

The ultimate in knowledge for Aristotle is a knowledge not just for things, but of the nature and interrelationships of the causes of things and of the universe known through its causes. This, Thomas agrees, is accessible by the light of reason in signate form, but it is perfect only up to a point. It is a world created in the pattern of Christ and restored to God through Christ

... To know [it] perfectly would be to know God perfectly, and this is possible only to God Himself. In this sense, a world created by God and endowed with its nature and purpose by God always retain some of God's own inscrutability, which is not so much a darkness as a brightness that make it too dazzling to be seen. (*sic*) (180-1)

Regardless of the accuracy of her analysis of Aquinas' theology, Colish distinguishes between mental representations in "*signate form*" and extramental things in natural existence: the reference to signs and symbols clearly indicates that she regards Aquinas as a representationalist. Besides, the causes of the world correspond to the extramental thing's causal *forms* which are ontologically different from the *signate forms*, according to the way of being they enjoy. These *signate forms* correspond to our mental representations of extramental things. They are not copies of the causes of the world, the extramental thing's causal *forms*.

The distinction between mental (*signate*) and extramental individual *forms* can be fully appreciated in Colish's view of intelligibility. Cognition starts with the senses, but as it becomes more intelligible, the relation between the being cognized and the extramental thing becomes increasingly estranged:

The human mode of knowing is by means of sensible things. This makes the mind adapted to the knowledge of superior beings; the more intelligible a thing is, the higher grade of being, the less the mind can know about it. Intelligibility is a property in themselves; is not a property of things which they acquire when they exist in the human mind and under not circumstances. (176)

Intelligibility is the inherent quality of being intellectually cognizable that all beings enjoy. This quality makes it impossible for us to fully comprehend the causes of the world; the only way to do it is by developing mental signs and symbols which represent the world. Colish's distinction between mental (*signate*) and extramental individual *forms* is in agreement with the present viewpoint defended in this dissertation, namely, that the *species* differs ontologically from the individual extramental thing's *form*. She, however, does not explain in detail how this intelligibility takes place in the first steps of cognition (sensible *species*), or when exactly it becomes truly symbolic (or representative). Besides, there is no account of how Aquinas' epistemology remains within the boundaries of realism: i.e., how we are able to know the extramental world: in a question, which is the common feature between this sign and its represented extramental thing? Colish only states that humans know the essence of things (the structure of God's universe) in a measure allowed by God. And this knowledge cannot consist in grasping the very principles of the world (extramental thing's causal *forms*): it is always a symbolic one, a representation.

Eleonore Stump

In order to describe Aquinas' act of cognition, Stump makes a distinction between 'presentation' and 'representation.' The former corresponds to the natural *esse* in which the individual extramental thing's *form* exists as part of the composite, and the latter to the intentional *esse* in which the extramental thing's *form* considered as essence exists

represented by a mental entity, the *species intelligibilis* (see quote below). This intentional *form* is “preserved” in a different mode of existence, in a way in which the cognizer may understand the extramental thing: “spiritually or intentionally, as encoded information, as we might say.” (Aquinas’s 305) The transmission of an individual extramental thing’s *form* in this intentional encoded *form* considered as essence prevents the knower from becoming an entity similar to the thing’s *form*, as if she were *informed* by the thing’s *formal* cause.⁵⁴

Accordingly, the *species intelligibilis* is merely “the means by which the intellective cognition of extramental reality occurs.” (290) The *species* is the object of knowledge only when the intellect reflects on itself. The proper object of the intellect is the quiddity of a material thing abstracted from the phantasm: quiddity is “delivered by the intelligible *species* to the potential intellect, which receives and preserves the form.” (293) Stump then introduces the distinction between ‘presentation’ and ‘representation’ stating that

because the intellect receives forms in an intentional or encoded fashion, the reception of those forms produces cognition in the intellect, even though the same form received with natural reception in the thing cognized doesn’t produce cognition in it. What is required for cognition is some sort of representation. The original “presentation” of the substantial form of wolf in matter produces a wolf; the representation of that form in the intellect produces cognition of the wolf.⁵⁵

She regards the essential *form* received as an encoded representation, and identifies the object of knowledge as the extramental thing. Thus, she implicitly recognizes the *species intelligibilis* as a representative being which conveys the essence

⁵⁴ See chapter III, section 3.3.3.

⁵⁵ (306) This distinction is found in the use of the words *representatio* and *representare*, as we will see in chap. III, sec. 3.1.5 and 3.1.6.

or quiddity of an extramental thing. However, she does not identify *species* with causal *form*, because she stresses the fact that cognition is an immanent process:

Human cognition is mediated first by sensible species and phantasms, and then by intelligible species, which are produced not by a causal chain extending from an extramental object to the intellect but rather by the action of the agent intellect on the phantasms. (302)

Although Stump points out that Aquinas does not offer a clear explanation of why the intellective *form* produces cognition (306), she suggests a metaphor for explaining the way in which the *species intelligibilis* “codifies” the essence or quiddity of all knowable extramental things (in order to construct concepts):

So when Aquinas says that the intellect is all things, he is speaking in the same mode when we say, for example, “it won’t be long before all our reference books are on CD-readers.” One can image some future historian laboring to explain this remark to students, who are wondering how a befuddled twentieth-century writer could have supposed that all those bulky books would be shoved through the little slot in the CD-reader. (306)

Our interest lies in this metaphor (not in the capacity of the soul to become all things) as it describes the way information is codified and stored, “re-presenting” extramental things. Although it is Klima who extracts the significance of this metaphor, as we will see in the next chapter (section 3.3.3), Stump does adequately maintain that this codification corresponds to the quiddity or *form* of the whole having intentional *esse*. This view allows us to see the essence (the intelligible structure or nature) as a common *ratio* between the *species intelligibilis* and an extramental thing.

2.3 Explicit Supporters of a Representational View

In this last group of scholars, we reviewed the opinions and commentaries of those who regard Aquinas as an epistemological representationalist. In some cases, they

exhibit a hesitant characterization because they have done their analyses within the framework of the traditional view; thus, they cannot reconcile their findings with an explicit representationalist characterization. In other cases, the representational account attributed to Aquinas has gone so far, that he can hardly be called a realist. In both cases, the confusion arises from a lack of understanding of realist representationalism based on the influence of our contemporary notion of ‘representation.’ In still other cases, the surveyed authors only mention succinctly that Aquinas is a representationalist, but they do not elaborate the claim; accordingly, they do not explain why Aquinas is regarded as a direct realist in epistemology.⁵⁶ Nonetheless, all these analyses are important for our discussion because they support explicitly the view that the *species* is a representational means for conveying information about extramental things, and they never regard *it* as a mere copy of the individual extramental things or their causal *forms*.

Pierre Rousselot

Rousselot is the first twentieth-century interpreter who explicitly affirms that Aquinas is a representationalist. He affirms that concepts are mere representations of the essences of extramental things because the main purpose of knowledge is to grasp the essence or quiddity of reality (see quote below, p. 91). To begin with, Rousselot affirms that knowledge consist primarily in grasping the extramental things: “L’intelligence ... son rôle est de capter des êtres, non de fabriquer des concepts ou d’ajuster des énoncés.”⁵⁷ But there is a correlation between the extramental world and the mind, and the latter is naturally capable of understanding the former:

L’intelligence ne doit pas être définie faculté de discerner, d’enchaîner, d’ordonner, de déduire, d’assigner les « causes » ou les « raisons » des

⁵⁶ Cf. Largerlund Terminological 24, Taylor and Herrera Aquinas 92, Carré 84, Bazan 434 among others.

⁵⁷ (xi) “The intelligence ... its role is to grasp being, not to make concepts or adapt propositions”

êtres. Son ouvrage n'est pas de les insoler de leurs entours, mais directement de capter leur en-soi, de s'assimiler l'intime des choses, qui est naturellement supposé diaphane et translucide à l'esprit.⁵⁸

The acknowledgment of this capacity for grasping the world's essences does not prevent him from stating the difference between natural and intellectual *forms* (which he indistinctively names 'ideas' or 'concepts'). The root of this difference is that we are able to know the extramental world only via mental beings, which are grasped by our intellect. Thus, we can understand the essence or quiddity of a "real object" (an extramental thing), although only as far as it is actually intelligible; this confirms the limitation of human knowledge:

L'intellection, avons-nous dit, est parfaite dans la mesure où elle saisit l'être tel qu'il est ... « la vraie humaine »... ne possède de l'être matériel qu'une notion incomplète, ne peut porter sur lui un jugement absolu.⁵⁹

This statement may suggest wrongly that Aquinas is not a realist. However, truth is the universal the abstracted essence that we need to grasp in order to know the causes of the world, as well as to make scientific judgments. Science is about universals, and that is what we naturally derive by abstraction. Not only is Aquinas a realist, but also his view solves the ancient problem of the tension between individual and universal essences, left to us by Aristotle. The issue here is that human knowledge cannot go beyond the material singular, and thus the essence of Socrates remains (as such) imperfectly known through a universal concept.

⁵⁸ (20) "Intelligence should not be defined as a faculty for discerning, joining, ordering, deducing, nor assigning the "causes" or "reasons" of beings. Its task does not isolate it in its surroundings, but to grasp it directly in itself, to assimilate the thing's interiority, which is naturally diaphanous and translucent to the soul."

⁵⁹ (90) "(The act of) intellection, we have said, is perfect provided that it grasps being as it actually is ... "human truth" ... only bears an incomplete notion of the material being, and cannot reach an absolute judgment about it."

En n'accordant à l'esprit que la perception du même, tandis que les réalités son diverses, il résolvait très nettement le problème posé chez Aristote, par l'affirmation d'une certaine impuissance et « irréalité » des concepts humains.⁶⁰

Si l'on rapproche cette affirmation de celle qui proclame l'exclusive réalité du singulier, à quoi faut-il conclure ? À une contradiction entre l'ontologie et la théorie de la connaissance ? C'est ce que plusieurs reprochent à Aristote ... Mais c'est ce qu'on ne peut reprocher à S. Thomas, qui, comme légitime conclusion du problème, reconnaît expressément une disproportion entre notre intelligence et l'être, l'appréhension de celle-ci étant trop confuse et vague pour saisir toute la détermination réelle de celui-là.⁶¹

There is a great deal about the knowledge of individual essences in Aristotle's ontology. The problem of individual essences is due to the fact that, as maintained by the Philosopher, what we know is an abstracted extramental thing's *form*. Hence, the abstractive act for Aristotle does not distinguish between the individual and the universal *forms* of Socrates.⁶² Conversely, Rousselot explains, Aquinas perceives that there is a difference between what is in the physical world and what can be known. For our study, the interesting consequence of solving the conflict between individual and universal essences is that human concepts turn out to be created as representative mental beings of individual extramental essences. Rousselot implicitly hypothesizes that the difference between mental and extramental reality is due to the difference of what these essences stand for. An essence of a singular composite, in which *form* is united with matter, stands

⁶⁰ (95) "Consistent with his approach that the actual perceptions, in conjunction with particulars, are different, he categorically solves Aristotle's dilemma, proclaiming a certain weakness and "unreality" among human concepts."

⁶¹ (91) "If one take into consideration this statement which declares the exclusive reality of particulars, what can be concluded? Is there a contradiction between ontology and theory of knowledge? This is something that Aristotle can be blamed for... But St. Thomas cannot be blamed for it, because, as a rightful conclusion to the problem, he explicitly acknowledges a disparity between our intelligence and being: the apprehension of the former being too confused and vague, to be a means of grasping the real determination of the latter."

⁶² See below chap. III, sec. 3.2.2.1 for an explanation, and chap. I, n. 7 for a controversy on this subject.

for the physical world. However, the so-called metaphysical *form* stands for a known quiddity or essence from a hylomorphic composite as a whole unity:⁶³

...Ce que l'esprit connaît, c'est un être conçu comme une abstraction (comme *humanitas*, la « forme métaphysique » des scolastiques postérieurs), mais représentant en réalité la totalité de l'essence, matière et forme physiques.⁶⁴

The metaphysical *form* mentioned here is the substantial essence of individual extramental thing as long as it can be grasped by the intellect. It corresponds to the abstracted *form* of the whole in Aquinas.⁶³ We have seen above that the *species intelligibilis* is just an indirect representation of an extramental thing, and as such is ontologically different from the individual extramental thing's *form*, the “natural” instantiation of an essence.⁶⁵ The individual *form*, as *form* of the composite, instantiates the essence in an individual thing, whereas the *species intelligibilis* stands as another instance of the essence, the abstracted essence of the whole represented in the mind.

According to Rousselot, what we have in mind as a concept is not a representation of an individual thing's essence, but a representation of the intelligible thing's essence. This universal essence is produced by an abstraction. Thus, Rousselot has no problem in recognizing the representative character of Aquinas' concepts:

Il est accordé que le concept est général, et que la représentation, même déficiente, de la substance singulière ne s'opère en nous que par la collaboration du multiple. Mais une nouvelle question se pose immédiatement, concernant encore le concept lui-même. Étant général, peut-il rester un? Étant abstrait, peut-il se présenter comme l'appréhension immédiate d'une chose? (95)

..... S. Thomas s'imaginait posséder, dans les concepts des quiddités

⁶³ For the *form* of the part and the *form* of the whole, see above, chap. I, p. 5, and n. 7, and chap. III, sec. 3.2.2.2.

⁶⁴ (93) “...Whatever the soul knows, it is a being conceived as an abstraction (like *humanitas*, the late scholastics' “metaphysical form”), but actually represents the whole essence, physical matter and form.”

⁶⁵ Chap. I, p. 6. On instantiability, see below chap III, pp. 154-5, especially n. 70.

matérielles, cette unité vivante et indéfinissable qui est l'idéal même de la « prise » des choses par l'esprit, cette « similitude de l'essence » dont on peut seulement dire qu'elle est « la chose à l'état intelligible », au lieu de l'être « à l'état naturel ». (96)⁶⁶

The likeness here holds between concepts and abstracted essences, which correspond to concrete, sensible composites. However, we have seen above that the *species intelligibilis* is what is grasped, and this is what Aquinas calls the “likeness of the thing.”⁶⁷ From it springs the representative concept mentioned by Rousselot. This likeness is about an individual extramental thing's essence (not the thing itself), and a representative mental being (a *species*); thus, a *species intelligibilis* represents the essence in an intelligible condition, namely, an essence that is able to be grasped by the mind.⁶⁸ Thus, the likeness holds between an individual extramental thing's essence and a knowable and intelligible extramental thing's essence.⁶⁹ The individual essence, in its natural condition, belongs exclusively to the individual composite: and this cannot be grasped as such. Rousselot does not make any explicit ontological distinction between the *form* considered as essence and the causal *form*, nor about the *form* of the part and the *form* of the whole. However, it is clear that such a distinction is implicitly based on the difference between a conceptual intelligible essence and an individual unknowable one.

⁶⁶ “We established that the concept is general, and that the singular substance's representation is, though deficient, produced in us as a result of concoction. A new question arises, though, concerning the concept itself. Being [the concept] so general, can it still be one? Having been abstracted, can it be presented as the immediate apprehension of a thing?” (95)

“... Regarding concepts of material quiddities, St. Thomas assumes to hold a living and indefinable unity, which is the proper notion of the ‘grasping’ of things by the soul. It is of this ‘likeness of the essence’ that we can only say it is ‘a thing in an intelligible condition,’ instead of being ‘in a natural condition’.” (96)

⁶⁷ On likeness see chap. III, sec. 3.2.1.

⁶⁸ The individual thing is represented by the phantasm as well, in an abstracted manner, keeping “particular information” about the concrete composite.

⁶⁹ For more on the difference between individual and knowable extramental thing's essence or *form*, see chap. III, sec. 3.2.2.1, p. 170 and sec. 3.3.1.

Further proof that the *species intelligibilis* is a representation of an extramental thing's essence, and not just a copy of its individual *form*, is found in Rousselot's reference to Aquinas' concept as a "creation" *formed* in the mind by abstraction: "(L'intelligible) ...se comprend fort bien si l'idée est conçue comme une création originale, fruit autochtone de l'esprit, produit nouveau de son activité."⁷⁰ According to Rousselot, it could not be otherwise due to the fact that not only is there a creation of a representative mental being, but also a previous analysis and deconstruction of the thing's essence from its "real" (natural) condition.

... Dans le concept, où cette unité est brisée, il faut reconnaître autre chose que la pure transposition de l' « état réel » à l' « état intelligible », il y a décomposition, connaissance impropre et analogique.⁷¹

Rousselot never denied Aquinas's metaphysical realism. Yet, in the realm of knowledge, the only way we can grasp the extramental thing's essence is not by copying its individual *form*, but by making a likeness of an essence with our abstracted mental concepts. The Thomistic view solves the Aristotelian discrepancy between universal and individual essence, although it also creates an unpleasant sense of skepticism (a kind of shortened knowledge, at least), which disturbs Rousselot.

In the present dissertation, we assume that direct realism is not a "better" way to guarantee Aquinas' metaphysical realism; the representational character of our concepts or the *species intelligibilis* does coexist with an epistemic realism. A direct realist position would not necessarily guarantee metaphysical realism any more than representationalism does: direct realism could not "improve" our knowledge, because the

⁷⁰ (93) "(The intelligible) ...can be accurately understood if the idea is conceived as an original production, an aboriginal fruit of the soul, and a product of its activity."

⁷¹ (103) "...In the concept, where this unity is broken, we must recognize something other than a pure swapping of the "real condition" for the "intelligible condition." There is breakdown, inaccurate and analogical knowledge."

mental act of cognition would also be given in the abstracted essence of the whole, not in an individual concrete essence (comprising *signate* matter). From this point of view, it is irrelevant whether there is a direct or representative realism in Aquinas: cognition is always a halfway knowledge of the concrete essence of an individual thing. This problem, however, is beyond the scope of the current dissertation.

Robert Pasnau

Pasnau offers some reasons for describing Aquinas as a representationalist, but he does not categorically call him a ‘representationalist.’ For him, Aquinas’ epistemology is confusing in this line of reasoning and offers two conflicting accounts. On the one hand, he insists on a *species intelligibilis*, which is a copy (likeness) of an extramental thing; thus, he holds a representationalist view. But, on the other hand, Aquinas rejects the view that the *species* is the object of knowledge; hence, he holds also a direct realist view. Pasnau concludes that Aquinas has a mixed account in which he exhibits symptoms of both representationalism and direct realism.⁷²

The problem with Pasnau’s view is that he fails to recognize the difference between epistemological and metaphysical accounts, as well as the influence of the contemporary understanding of ‘representation.’ He identifies two types of representational views: on the one hand, a representational idealism (Rep_i), in which the knower is acquainted exclusively with her own “ideas” or concepts:⁷³ “knowledge claims wouldn’t be about the external world at all; they’d be about ourselves.” On the other

⁷² Pasnau offers two types of *species intelligibilis* accounts: one is the naïve account, in which the *species* is the object of cognition; it entails representationalism. The other is the sophisticated account in which we know by causal intermediaries (in a subcognitive level) the extramental world; it implies direct realism: “...Aquinas can best be thought of as holding a seminaïve species theory (or semisophisticated, if you prefer to see the glass as half full). Although he explicitly rejects representationalism and denies that species are (ordinarily) the objects of cognition, at the same time he takes species to mediate cognition not just causally but psychologically.” (Theories 197) For sophisticated and naïve species theories, cf. p.195.

⁷³ Cf. 210. For the difference between “ideas” and concepts, see below chap. III, sec. 3.1.2.

hand, a representational realism (Rep_r), which

[does] not hold that the *only* things that we apprehend are species, so [it] does not deny either that knowledge and belief claims are true or false in virtue of the external world, or that if we have the kind of knowledge we think we do, it is knowledge of the external world. ...But [it] does maintain that it is species (or representations, etc.) that we *directly* apprehend and that we never directly apprehend external objects. (210)

According to Pasnau, both types of representations lead to the view that species are apprehended immediately, which in turn leads to the unavoidable conclusion that the world is always perceived indirectly (213). But this opinion is not in agreement with Aquinas' teaching. His *species* is only the *medium in quo*: "if that [external] object is seen through a species, is that sight is *drawn* to the external object, not to the medium." (215) An extramental thing is the first thing cognized by the intellect; hence there is not an indirect knowledge of it:

So the reason that the external world is rightly said to be the thing perceived and cognized is that it is the external world that we (ordinarily) come to have beliefs about on the basis of our cognitions. (216)

The point here is that we are cognitively determined to forming thoughts and judgments about the external world. (217)

The basis on which Pasnau concludes that Aquinas is not committed to representationalism (219) is that the *species* is not (ordinarily) seen or intellectually cognized (218). However, we must remark that, in saying this, he confuses the epistemological object of knowledge and the ontological thing known, which need to be distinguished in any analysis regarding the role of the *species intelligibilis*.⁷⁴ That judgments, considerations, and perceptions are *about* extramental things does not necessarily imply that our cognitive act cannot be based on a realist representational *species*. Aquinas'

⁷⁴ See below chap. III, sec. 3.1.5 and 3.1.6.

metaphysical realism is the view that our knowledge is about extramental reality; but this does not rule out representationalism, as Pasnau assumes.⁷⁵

More specifically, he confuses psychological and epistemological awareness. The fact that a knower knows via the *species* does not imply that these *species* are consciously perceived, as explained above.⁷⁶ Both direct realism and realist representationalism acknowledge the existence of mental beings and do not regards them as the things that are ordinarily known. Both theories differ from representative realism, a view usually attributed to modern thinkers in which the epistemological objects of knowledge are our mental beings. Thus, realist representationalism does not claim that an “idea” or mental being is epistemologically different from the extramental thing; it only claims that the object of knowledge is ontologically different than the extramental thing itself, that the thing is known indirectly through a mental representation.

However, from this erroneous understanding of ‘representationalism,’ Pasnau concludes that

if representationalism is the claim that we see, hear and otherwise cognize species, and if seeing and cognizing species entails that it is species we form beliefs about, then it becomes plausible to think that any kind of representationalism would entail Rep_i. (Theories 219)

Even though he asks for a wider sense of the term “representation” in his analysis of Aquinas’ act of cognition,⁷⁷ his understanding of this term prevents him from realizing that a representation could lead to the extramental reality without turning into idealism.⁷⁸

⁷⁵ See above chap. I, pp. 17-18.

⁷⁶ See above note 48.

⁷⁷ “The term [representation] should be taken to entail no more than that species do convey information about the world to our cognitive faculties. As for how the information is coded, and how is received, I mean in terminology to remain neutral.” (18) For ‘resemblance,’ cf. p. 16.

⁷⁸ Pasnau 197. He uses a terminology borrowed from Dancy, J. *Perceptual Knowledge*. Oxford: OUP, Oxford Readings in Philosophy, 1988 (6-9).

The problem is that Pasnau understands representational realism (Rep_r) as “representative realism” (the contemporary view) and not as a “realist representation” (the medieval view).⁷⁹ He maintains that both Ockham’s and Olivi’s criticism of Aquinas about the use of an intermediary *species* in cognition offers support for the view that he understood the *species intelligibilis* as a representative mental being.⁸⁰ Still, due to the interpretation of the alleged rejection of *species* as the object of knowledge, Pasnau is unwilling to describe Aquinas’ view of cognition as representational,⁸¹ thus, confusing the object of knowledge (as a mental being) with the information provided by it (the essence of the object known).⁸²

Despite the fact that Pasnau hesitates in describing Aquinas as a representationalist, he investigates in detail the role of the *species intelligibilis* as representational. He recognizes this representative character in the act of knowledge, and denies the label of “direct realism” for Aquinas’ epistemology as well:

Although it is the world and not our inner representations that we form belief about in standard cases, we nevertheless acquire those beliefs about the external world through a perception-like relationship with our sensible and intelligible species. It is debatable whether such a view should count as a form of direct realism. But whatever labels we decide to attach to Aquinas’ position, it is very far from what a proponent of the sophisticated reading would expect. (219)

He affirms that the *species* is a *form*: “... ‘Species’ is being used in a wide sense to mean a form. The primary point ... is that the intelligible likeness (or species) of a given

⁷⁹ See above chap. I, pp. 16-17, especially n. 35.

⁸⁰ Cf. 185-7.

⁸¹ “Hence, to characterize Aquinas’s species as representations may seem to stack the deck against him from the outset, and to decide by terminological fiat how to resolve what I have characterized as the chief interpretative puzzle this book raises: whether to give Aquinas a sophisticated or naïve species and (correspondingly) whether to give Olivi and Ockham a modest or decisive role in developing medieval theories of cognition.” (16)

⁸² We have seen the same confusion in Kenny (see above, chap. I, p. 39 and ff.), and we will discuss it further in the third chapter (see especially sec. 3.3.2).

object must be the form of that object.” (88) Which sense of “*form*” is he thinking about? The *form* considered as essence or as the *form* of an individual composite? Pasnau does not explicitly state it, but he establishes a relation between the *species* and the individual *form*: because Aquinas defines “likeness” as an agreement in *form* between the *species* and an extramental thing, this *formal* agreement implies that the *species* and an extramental thing “share” a *form*.⁸³ To “share a *form*” implies that there is a common *form* to both, which could be interpreted as the *form* considered as essence. However, Pasnau believes that they share a *form* because there is a “kind of causation” from the extramental thing onto the *species*. This “causation” accounts for *communicating* (making common) a *form* onto the *species*. This is what makes Aquinas’ metaphysical realism “true:” due to this *common form*, knower and known become one through a “*formal* identification.”

It’s because external objects make an impression on our sensory organs and (indirectly) on our higher-order faculties that those impressions, under the name of ‘species,’ are formally identical to, and are likeness of, external objects. Formal identity is thus guaranteed by our causal connections with the world.” (305)

Nevertheless, we may ask again, *form* in which sense? If he thinks that the link between the *species* and the extramental thing’s causal *form* is the *form* considered as essence, he is right. Due to the immanent act of cognition, the *species* conveys the intelligible structure of the thing, the *form* considered as essence or nature. However, if he believes that the link between these mental and extramental entities is “a *form*,” then Pasnau is wrong because he presupposes a being which has “passed” from the

⁸³ “Why, one might wonder, is an agreement in *form* required? Aquinas explains that in two different ways. First, he thinks the only way two things can be similar is if they share a form... So, because cognition is brought about through likeness, it involves an arrangement in forms. Second, Aquinas holds that “agents act through their forms,” and to their forms the actions correspond. So, because cognition is an action, there must be a form corresponding to, and bringing about, cognition... this form is the species.” (88)

extramental thing to the *species*. Unfortunately, he does not clarify in which sense he understands the term '*form*.'

Furthermore, Pasnau states that the likeness between the *species* and the extramental thing, and the *formal* identity between knower and known are due to a causal *communication* of a *form*. The same *formal* identity, taken in a broader sense, leads Aquinas to view the *species intelligibilis* as a representation.⁸⁴ Nevertheless, Pasnau notes that this "causation" cannot be like the ordinary efficient causation between two physical things in which an agent *communicates* its *form* to a receptive patient (like a fire heating a water in a pot). The way in which these physical entities share a *form* is different from the spiritual and intentional *communication* that occurs in the act of knowledge.

Even though Aquinas is constantly speaking of the cognitive faculties as taking on the form of their objects, it is hard to see how to translate this formal identity into a natural resemblance.... Nothing like this seems to hold in the case of the formal identity between cognizer and cognized. This is particularly clear for the case of the intellect. Intellect thinks of a horse through the form of a horse. But surely thinking of a horse does not give the intellect any of the physical or functional attributes of a horse.⁸⁵

In the end, it seems that Pasnau believes that the *communicated form* is not the causal *form*. The fact that Aquinas defines likeness as agreement in *form* between the *species* and an extramental thing, and that the identity of knower and known is a *formal* identity, does not lead to a *communication* of the causal *form* from the extramental thing into the soul. It is not the case that a knower has the individual extramental thing's *form*, or a copy of it, in the mind. What is *communicated* is the nature or essence, the

⁸⁴ "...Formal identity is responsible for giving our mental states their intentional contents... This is perfectly true in the sense that Aquinas explains mental representation and intentionality in terms of formal identity. My thoughts about *x* are about *x* insofar as they are the likeness of *x*, and Aquinas explains likeness in terms of formal identity." (299)

⁸⁵ (110-1) [Cf. also 108] We also saw his explanation of the difference of causation. See above in chap. I, pp. 7-8.

intelligible structure. Hence, Pasnau seems to refer to the abstracted *form* of the whole:

“Again, the point is that no kind of identity is involved but that it is merely formal identity, not actual numerical identity.” (303) He seems to acknowledge that the *species*, as a mental *form*, is not a copy of the extramental thing’s individual *form*, by stating that this “non numerical identity” takes place because both the act and the product of cognition correspond to the different kinds of *formal* causation mentioned above:

Aquinas [restricts] the reception of forms to a certain kind of reception, namely, that of intentionally existing forms... Intentional existence, for Aquinas, gets contrasted with natural existence. Forms that exist in the former way have no “fixed existence in nature;” [*QDSC* 1 *ad* 11] they lack “true existence.” [*Sent.* I 8, 5, 2 *ad* 4] Crucially, a form received intentionally is received in a manner different from that in which the form existed in the external object. (33)

Thus, the causal *information* among extramental things is different from the *information* of both, the *species* and the potential intellect, because we are not dealing here with physical acts. It should be stressed that Pasnau maintains that this is not the case due to the immateriality of the extramental thing’s *form*: he notes that all types of causal *information* imply the immateriality of the *form*, when they pass from the agent to the patient.⁸⁶ Indeed, this is why Aquinas uses ‘*species*’ instead of ‘*form*’ in the act of knowledge.⁸⁷ Thus, the difference of causation is not the immateriality, but the mode in which cognitive acts take place, as well as the mode of being of *species*: “Aquinas explains that when [an angel] apprehends the essence of [another] angel one receives a

⁸⁶ “[Commenting] Aristotle’s claim that “a sense is receptive of species without matter” (424a18)... Aquinas notes that this doesn’t seem peculiar (*proprium*) to the senses, because all alteration involves the reception of forms without matter. The *differentia* Aquinas identifies between sensory reception and ordinary reception lies in the manner of receiving. The senses receive forms that exist intentionally (as does intellect), whereas other things receive forms that exist naturally. [*In DA* II.24.13-95 secs. 551-55]” (49) See also below, sec 3.3.1, p. 185.

⁸⁷ “Being “receptive of the species of other things “ seems to be a feature that all and only cognitive entities posses. (Notice that Aquinas refers to *species* and not just to forms in general; he probably means this... to confine his claim to *intentionally* existing forms.)” (49)

species that exists intentionally, not naturally.” (38) Therefore, a *species* cannot be an individual extramental thing’s *form*, because the latter exists naturally, and is the principle of a composite, acting as a *formal* cause. In contrast, the *species intelligibilis* represents the whole essence of an extramental thing.⁸⁸ Furthermore, Pasnau insists that the likeness between the *species* and an extramental thing should be taken broadly, and that it must be allowed several different possible meanings: the likeness seems not to be just a mere copy of the individual extramental thing’s *form*.⁸⁹ Besides, in cognition, we are dealing not only with an immaterial act, but also with an intentional cognitive immaterial act, which implies representation:

Two kinds of likeness are described in this passage: [*QDV* 2, 3 *ad* 9] likeness in terms of agreement in nature, and likeness as regards representation. (In another passage, [*Sent.* I 34, 3, 1 *ad* 4] Aquinas refers to the latter as likeness though information.) Only likeness as regards representation is required for cognition. (Theories 107)

Further analysis of the act of cognition shows two different aspects. On the one hand, a kind of *informative* causation, which differs from ordinary physical causation: the making of the *species* (and the subsequent *information*-like act of the passive intellect when the *species intelligibilis* reaches the mind).⁹⁰ On the other hand, there is the content, the information of the extramental thing transmitted into the mind by the *species*:

He takes cognition to be a matter of a species informing the cognitive faculty. He distinguishes two ways in which such a species or form can be considered. ...On the one hand, a species or form can be considered as it

⁸⁸ “By definition, ...the form makes something actually to be a thing of a certain kind. Hence, it would seem that the essence of a material substance is its form. Yet Aquinas denies it too, arguing instead that the essence includes both form and matter. So the essence of human being makes reference both to soul and to body.” (Pasnau and Shields 55)

⁸⁹ “My conclusion is that, for Aquinas, mental representation is not entirely a matter of resemblance, and to the extent that resemblance is involved this has to be interpreted in a broad an open-ended manner.” (Theories 16) “The question is still open as to the respect in which species are *like* objects or even if they *are* always like objects. One might argue that Aquinas does not intend that we take *similitudo* literally in every case.” (Theories 87)

⁹⁰ Cf. Theories 35 and ff.

produced a cognition. Looked at in this respect, questions arises as to precisely what causal role the species plays... On the other hand, a species determines the *content* of the cognitive act, in making the cognition to be that of a certain sort of thing. (105-6)

Accordingly, Pasnau brings up the difference between natural and intentional acts of *information*, a distinction that should lead to the conclusion that the *species* is a kind of *form*, but not a copy of an extramental thing's causal *form*. Nonetheless, he does not explain *what* kind of *form* the *species* is. He only distinguishes between the *species* as a representation of the extramental thing, responsible (in part) for the *information* of passive intellect and the content of *species*. Pasnau does not explain *what* kind of information (content) is provided to the mind as well.⁹¹ We can only suppose that he regards an extramental thing's causal *form* and the *species* as two ontologically different entities.

As noted above, Pasnau's interpretation conceives *species* as a kind of modern representative mental being, one in which there is a content epistemologically independent of the original extramental thing from which it has been produced. For that reason, there is an additional problem for him: the connection between the *species intelligibilis*'s content and the extramental thing's features:

If my interpretation is correct, Aquinas's sensible and intelligible species aren't iconic signs or eidetic likeness at all; it seems that they need share none of the qualities of the objects they represent. One might complain ... that a species *does* share at least one quality of the object it represents, namely, its form. (109)

Pasnau does not explain this content, nor the "certain *form*" of the *species*. With reference to the nature of *species*, he only affirms that it is *formally* the same nature as the

⁹¹ "...Species, as forms of the cognitive powers, play a certain causal role in producing a cognitive act with a certain content," (211)

extramental being. (268) But, if the individual extramental thing's *form* is not the *species*, because the cognitive act is based on both the way in which it is received and its mode of being in the mind, then, what is the proper nature of the *species*? If *species* is a representative mental entity, and "the object of cognition is not the inner likeness but the 'nature itself,' which exists only in singular objects," (302-3) what does the *species* represent? The answer according to the viewpoint defended in this dissertation is that the *species* represents the extramental thing's *form* considered as essence, the abstracted *form* of the whole, being itself an instantiation of the nature, but in a different mode of being (i.e., a different instantiation of the extramental thing).⁹²

Nevertheless, in a recent publication, Pasnau not only denies that Aquinas' *species intelligibilis* and the individual extramental thing's *form* share the same *form*, but also that they share the same nature or essence:

In as much as Aquinas thinks that all causal relationships involve agreement in form, and that likeness too always consists in some sort of formal agreement, he has a quick way of getting from a causal account of our cognitive processes to conclusions about the likeness between concept and object. But though the path may be direct, a serious obstacle stands in the way. For even if Aquinas can describe a causal chain running from the senses all the way to the intellect, he has to allow that what the senses apprehend are the superficial sensible qualities of things, not their essences or natures. (Abstract 57)

Pasnau's recent view on Aquinas once more distinguishes mental beings from their counterparts, the individual *forms*.⁹³ As a consequence, however, he holds that there is an inaccurate representation of extramental things, the reason being that knowledge is the grasping of the universal essence, not the individual thing's essence. He does not

⁹² See chap. III, sec. 3.2.2 for *species* and 3.3.2 for nature.

⁹³ "...The intellect is not representing things as they are. In the mind, natures are conceived of as universal, but in reality they are always particular." (52)

deny Aquinas' grounds for realism, but his view reminds us of the criticism of modern philosophers, such as Berkeley or Hume.⁹⁴ The root of his hesitant characterization is the epistemologically independent content of the *species intelligibilis*, a problem connected with a contemporary understanding of 'representation.' As we shall see in the third chapter, a different understanding of this term makes possible not only the metaphysical realism of Aquinas, but also opens the possibility of representative interpretations of his epistemic realism.⁹⁵

Claude Panaccio

Panaccio is the major supporter of the interpretation of Aquinas as a representationalist. He maintains that the *species intelligibilis* is a representational mental entity because Aquinas defines it as a copy (*similitudo*) of the extramental thing. Accordingly, there are two representative mental entities in the Thomistic account of knowledge: concepts and *species*.⁹⁶ Panaccio's strategy consists of a careful selection of the various passages in which Aquinas identifies the *species intelligibilis* both as an intermediary in cognition and a representation of the extramental thing that is known.⁹⁷ While giving a short description of the act of knowledge, Panaccio denies that the *species* is a "transporter" of the causal *form* of the extramental thing, a copy of it, or the individual

⁹⁴ Cognition implies a representation of the nature but based only on the knowledge of the extramental thing's features, not on the essence: "The conception within intellect is the end result of a cognitive process that began with a sensory perception of a stone, and culminated in an abstract representation of the nature of stone. Our reason for being confident that our concepts are true is that we can tell a causal story about how those concepts were generated by the things themselves." (56)

⁹⁵ See chap. III, sec. 3.1.5 and 3.1.6.

⁹⁶ Cf. 188. Here we are only interested in *species*. But Panaccio uses almost the same strategy for analyzing concepts.

⁹⁷ "It seems difficult, in view of such texts (and many others), to maintain that the Thomistic concept is no mental representation at all." (191) For these specifics texts about *species* 189.

extramental thing's *form* without matter.⁹⁸ However, the use of likeness as *formal* identity may lead to misinterpretations:

One must take care, though, that talking of the *sameness* of a form... naturally invites the question: which sort of form would be that the mind—or something in it—needs to share with the cognizing thing? Not an accidental form, obviously, like being of the same colour, since the mind normally does not take on the accidents of the cognized things: nothing is red in my mind when I think of red objects—or red redness. But not a substantial form either: you need not really take on the substantial form of a rabbit in order to know rabbitness. You need only take it on *intentionally*. Intentionally taking on the form of a rabbit, however, means nothing more, as we saw, than having in one's mind a similitude of the rabbit nature... (199)

The first thing to note in Panaccio's account is that the *species* is a *form*, but a new one created during the act of knowledge.⁹⁹ This *form* has no causal relation with the extramental thing's individual *form*, nor is a copy of it, or the selfsame *form* without matter. It seems to be a *form* by name only, for it does not *inform* anything: “[*species*] are deposited in the possible intellect and stored there for future use.” (189) Ontologically speaking, then, the *species* is not a *form*, and not even an accidental *form* in the soul.¹⁰⁰ Thus, Panaccio does not distinguish between the information conveyed by the *species* and the kind of *information* made by the agent intellect in conjunction with the phantasm (or image) and impressed on the passive intellect, which creates the *species intelligibilis*.¹⁰¹ Although the extramental thing's *form* conveyed by the phantasm is not a

⁹⁸ Cf. his criticism in 186-7.

⁹⁹ “The cognizer gets in touch with external objects through his senses (sight, hearing and so on) and forms sensible images of these external things; and then the agent intellect takes over and abstracts intelligible forms from these sensible images. These intelligible forms are the intelligible *species* I am now talking about.” (188-9)

¹⁰⁰ See above chap. I, pp. 10-11.

¹⁰¹ One is the data of the extramental thing's essence; the other is the “creation” of the *species intelligibilis* in the passive intellect by the active intellect and the phantasm. We have clearly denied that there is a real *informative* act either of the *species* or the passive intellect. (See chap I, pp. 7-8) However, if the knower becomes one with the known, it is because there is a kind of *information* of the passive intellect by the conjunction of the agent intellect and the phantasm. (See chap. III, sec. 3.3.3)

causal *form*, the passive intellect “receives” the extramental thing’s *form* in a way which is analogous to an act of *information*: the mind becomes one with the known thing’s essence.

Additionally, it must be noted that Panaccio reduces intentionality to likeness:¹⁰² *similitudo*, correspondingly, is the basic representational relation that makes knowledge possible:

Cognition takes place not because the cognized thing is in the mind according to its proper nature, but in virtue of a *similitudo* relation between the mental *species* and the external thing. This, undeniably, sounds very much like some strong sort of representationalism. (189)

How radical is Panaccio’s view of this representative relation between thing and *species*? He denies that *species* is either the quiddity of an individual extramental thing, or its nature.¹⁰³ What kind of similarity exists, then, between *species* and thing? How and why are they similar? Panaccio not only does not address these issues, but he also advances the disconnection between *species* and extramental thing:

Intentional identity, in Aquinas’s most considered way of speaking, is analyzed as a *similitudo*-relation rather than a real identity-relation. *Similitudo*... might have included, in some way or other, a causal component which we would not normally associated, today, with ‘similarity.’ But the core of it would still have to be some sort of isomorphism. (200)

Panaccio diminishes the *formal* identity between representation and represented in favor of likeness. Although he offers to describe how *similitudo* functions as some sort or isomorphism (188), this alleged isomorphism between *species intelligibilis* and extramental thing is never specified, (198) and thus the *similitudo*-relation “remains an

¹⁰² “What comes out of the texts I have reviewed, however, is that intentional identity is explained in Aquinas’s most considered formulations, in terms of similarity, rather than the reverse.” (200)

¹⁰³ “Representational *similitudo* is not the sharing of a nature...” (198) “Neither the intelligible *species* nor the mental word is to be directly identified with the quiddity of the thing itself.” (196)

open question.” (200). In his view, extramental things (or their essences) are not identical with concepts, because they can “only” be reached through similarities, representations, images, etc. (199) Likewise, he admits “a causal component” in Aquinas’ view of cognition, but he never explains why or how this causal activity can be either responsible for, or coadjutant with, a *similitudo*-relation.

This dissertation certainly agrees with the general claim presented by Panaccio, that the *species intelligibilis* is a mental representation of the extramental thing; but, at the same time, it also claims that Aquinas holds a realist representational view. On the contrary, Panaccio’s justification of representationalism has gone beyond any cognitive realism, especially when he denies that *species* is not the nature or essence of an extramental thing itself. As a consequence, Panaccio wonders whether realism is still feasible: “Aquinas’ representationalism thus turns out to be incompatible with realism after all.” (200)

The thesis defended by the current dissertation is that both the *species* and the thing are different instantiations of the same essence or nature. Panaccio’s view, going too far, does not allow any possible relation between the *species* and the extramental thing that preserves Aquinas’ metaphysical realism. If *species* is a representation epistemologically independent of the extramental thing, as he assumes, then we have a case of modern representationalism, in which it is needed to establish connections between the content of a mental symbol and the extramental symbolized thing. Indeed, this is how Panaccio understands ‘representation:’

...By *mental representation*, I will mean any symbolic token existing in some individual mind and endowed within this mind with a semantic

content. A mental representation, in this vocabulary, is a mental token referring to something *else*, something extramental in most cases.¹⁰⁴

Panaccio cannot describe Aquinas as a metaphysical realist because in his account he does not provide a realist cognitive connection between the representation and the represented. In the analysis presented in the next chapter, we support the view that *species* is a mental representation, but we do not understand ‘representation’ in a contemporary standardized way. Hence, we are able to establish a *similitudo*-relation founded on the extramental thing’s essence that allows the *species* to “re-present” the extramental thing’s *form* considered as essence in the intellect.

Paul Hoffman

In an article devoted to Cartesian philosophy, Hoffman attributes to Aquinas a realist representational view.¹⁰⁵ He claims that in order to make a case that Aquinas is a direct realist, one must find evidence that the extramental thing’s causal *form* is found in the mind as a result of cognition. (Direct 167) Quite the opposite, he has found evidence that Aquinas holds a representational view via *species intelligibilis*:

Aquinas’s assertion that the intelligible species is not what the intellect understand, but that by which the intellect understands, which is often thought to provide evidence in favor of his being a direct realist, can equally well be taken a point in the other direction. If the form existing spiritually in the intellect is not what is understood, then it must be playing the role of being an intermediary between the intellect and what is understood. Aquinas says that a thing seems according to the way the cognitive faculty is affected and that the form existing spiritually in the intellect enables us to understand because it is a likeness of what is understood. This sounds like representationalism to me. (169)

If *species intelligibilis* is a mental *form*, but not the object of knowledge (what is understood), then there must be something that is understood and “conveyed” by this

¹⁰⁴ 185. Cf. also the same definition in 189 and 200.

¹⁰⁵ We have distinguished this view from the one called “representational realism.” See chap. I, pp. 16-17.

species. Therefore, the *species intelligibilis* is a representative being which brings understanding of something else, i.e. the extramental thing.¹⁰⁶ Hoffman supports his representational understanding of Aquinas' cognition with a paragraph constantly quoted by the supporters of direct realism.¹⁰⁷ How is it possible that he uses the same textual evidence employed by the defenders of a traditional view as a proof of Aquinas' representationalism? As we have seen throughout the current study, the only way to use these texts is by modifying our own view of 'representation.'

Hoffman states that the standard contemporary use of 'representation' is such that "there must be immediate objects of awareness that have the properties that bodies appear to have but do not have."¹⁰⁸ However, he denies that all representations should be taken in this way. This standard representationalism is motivated by the need to explain perceptual illusions (as the perceived elliptical form of a coin). There are, however, other motives for assuming representationalism as an account of cognition: one could use them in order to justify foundationalism (thus, representations are certain and indubitable objects of awareness). (164) Another motivation consists in finding a way in which representationalism may explain the cognition of distant things –which direct realism fails to do because of the lack of contact. Thus, the last motivation for using mental representations holds different presuppositions than the previous ones:

One can hold that the immediate objects of awareness must exist in the subject of awareness without holding that the immediate objects of awareness must be as they appear or that the immediate objects of awareness must actually possess the illusory properties of physical objects.

¹⁰⁶ Here Hoffman is making a distinction between the *species intelligibilis* as a mental *form*, which as a being is an accident of the soul, and the content of this *species* which is the extramental thing's essence. This distinction was explicitly made by Thomist philosophers after Aquinas' generation: they called the *species* "formal concept" and the content "objective concept" respectively. Cf. Peifer 37, 38-39.

¹⁰⁷ See this paragraph above in chap. I, p. 13-14.

¹⁰⁸ (164) Hoffman takes this view from Jackson, Frank *Perception*. Cambridge: CUP, 1977, p. 190.

A representation, taken in this sense, does not provide an explanation for immediate sense data, but for the extramental thing *as it should be*.¹⁰⁹ Hence, representationalism may offer a “realist” account of extramental things and their misperceptions (in the case of illusions) as direct realism does: both theories assume metaphysical realism, and both explain perceptual misapprehensions as well.

From the point of view of our analysis, the importance of having another understanding of ‘representation,’ which no longer uses representations in order to explain immediate sense-data (the modern view), is that this view holds representations as mental beings which explain extramental things themselves as they are in the extramental reality (the medieval view). Representations are the objects of knowledge, but they lead us straightforwardly to “real” things.

According to Hoffman, this type of representation is only a means to explain, for instance, that the extramental being of the sun can exist in another way in the mind: it can exist as a mental being.¹¹⁰ Indeed, the main objection of a direct realist view with regard to “representations” is only about the object of knowledge: it is not that representations do not refer to “real” things, but that they do refer to them indirectly, via (representative) mental beings. Therefore, a direct realist may criticize representationalism for stating that we are “aware” not of the perceived thing, but of the representation itself: we are only aware of the “real” extramental things after an inferential awareness. Hoffman counterargues by stating that

¹⁰⁹ (165) Later on, he gives more details of this view: “If a representationalist is motivated only by concern about the impossibility of direct awareness at a distance, then he could still maintain that even though we are directly aware of ideas, these ideas need not to be as they appear.” (170)

¹¹⁰ 168. The example use by Hoffman here is about Descartes’ objective being of ideas, but it fittingly explains Aquinas’ difference between *species* and extramental thing.

a representationalist can argue that by the very fact of our being directly aware of ideas of external objects, we perceive external objects (indirectly), whether or not we form the belief that we are perceiving those external objects. It may require an inference for us to form the belief that we are perceiving those external objects. It is equally true that on direct realist theories perceiving need not be identified with believing. Even if we are directly aware of *q*, it still may require an inference for us to form the belief that we are perceiving *q*. (170)

The real difference between representationalism, characterized above, and direct realism is not that we are “consciously” aware of our representation and, later, the extramental object. The difference is that representationalism assumes the existence of a mental being, which is unconsciously perceived, but which leads us toward the extramental thing and does so as effectively as in the view assumed by the direct realists. To suppose that representations necessarily imply inferential awareness of extramental things is to generalize a psychological understanding of ‘representation’ onto all other forms of representationalism.¹¹¹

Hoffman discusses another objection to representationalism introduced by a theoretical difference between direct realism and representationalism: intentional views based on mental “acts” are attributed to direct realism, whereas “mental contents” are part of representational views. A critic of a supposedly Thomist view as representationalist, in this case, may offer the following analysis:

According to the representationalist, intentionality is based on a non-intrinsic, relational property of the act of awareness, namely the relation that it bears to the immediate object. According to the direct realist, intentionality is based on an intrinsic, non-relational property of the act of awareness. (174)

In view of that, it would be the content of a mental representation what would direct (relate) our perception to the extramental thing, instead of the act of perception

¹¹¹ We have seen this view in our commentary on Pasnau (above, p. 96-7). See also above n. 48.

itself. On the other hand, the direct realist assumes an intrinsic connection between a mental being and the act of perception: the act itself produces cognition and directs (relates) the mind to the extramental thing, not the content of a mental representation. Whereas the act itself functions as a “pointer” to the extramental thing, in the representational view it is the mental content which assumes that function, because we are indirectly aware of the extramental thing via representational contents. However, Hoffman counterargues that

a theory of perception that held that we perceive external objects by perceiving the content intrinsic to acts of perception would still be representationalist, because that intrinsic content would be serving as an intermediate object.

Why do direct realists fail to acknowledge that the content of their acts is the link between the act and the represented extramental thing? The origin of this error lies, according to Hoffman, in the lack of distinction between two different aspects of the cognitive act: one is the content; the other is the intentional capacity of a mental being to direct the mind towards extramental things.¹¹² It is assumed that in a representational view, the content of mental beings is conceived of as a “metaphysical fiber optic telescope” which, like a pointer, directs our attention towards the extramental thing. (175) But this is not the case: What the representationalist affirms is that we are aware of an extramental thing because of a representation, not because we are aware that it “is representing” the extramental thing. Thus, to call the representation’s content a “pointer” is to be unaware of the difference between the content and the intentional capacity of the cognitive act (or the representation). (176) The capacity of pointing towards an

¹¹² 174-5. Hoffman is again speaking about Cartesian epistemology but, *mutatis mutandi*, this view fits Aquinas’ cognition as well.

extramental thing is a feature of the mental being (Cartesian idea, *species intelligibilis*, or any other), which occurs during either the direct or the representational act of cognition; and this has to be differentiated from its content.

On the one hand, the view defended by this dissertation agrees with Hoffman's critique concerning the way in which 'representation' is usually understood, which is clearly biased by modern and contemporary understandings. Thus, we need to reinterpret our conception of 'representation' if we are willing to describe Aquinas as a realist representationalist. On the other hand, it is important to clarify a last observation with regard to this difference between content and directness. Hoffman affirms that

once it is clear that the content functions only as a feature of an idea that points it towards its objects, then there is absolutely no reason to think of the content as resembling or being similar to its object. Pointers standardly do not resemble what they point to. (176)

It is true that a realist representationalist such Aquinas does not believe that the mental representation, the *species intelligibilis*, is ontologically identical to the extramental thing that it represents. Mental beings do not have the same ontological properties as extramental things. There is also an abstraction with respect to the concrete individual quiddity: the mind only grasps universal essences. However, it is also true that what distinguishes Aquinas' realist representationalism from any modern representative realism is that the content of the mental being is epistemologically identical as the extramental thing's essence. This is what is understood by Aquinas' epistemic and metaphysical realism. And this identity is possible, according to Aquinas, because natures do not exist in themselves, but only either as universals in the mind or extramental things: both the extramental thing and the *species intelligibilis* are different instantiations of the same nature. Thus, similarity and dissimilarity between mental beings and extramental

things are both explained by the cognitive apprehension of the individual extramental thing's *form*, neither by grasping the thing as it exists in sensible reality, nor its causal *form*. A representation certainly has different properties than an extramental thing, because of their ontological status. But the information about those extramental features is essentially received in the mind.¹¹³ This is what makes Aquinas' realist representationalism different from modern and contemporary versions of representations.

Martin Tweedale

Tweedale analyzes representationalism during the Middle Ages and, according to him, there is no doubt that Aquinas' *species intelligibilis* is a representative mental being. He stresses the realism of Aquinas' representational view by stating that "it was not the likeness itself which was seen but what that likeness was a likeness of." (Mental 36) He concludes that Aquinas, as well as other medieval philosophers, combines direct realism with representation. Because we have seen in the present dissertation that these views are opposed to each other,¹¹⁴ it is obvious that Tweedale is implying that Aquinas was unaware of this evident opposition. However, our view is that Aquinas was not interested in these contemporary epistemological labels; he simply wanted to stress epistemic realism, but not specify a direct or indirect version of it.¹¹⁵

In any case, Tweedale argues that Aquinas tries to refute an anti-Aristotelian view (maintained by Avicenna and Averroes) which holds that "what is directly apprehended by the senses is something internal to the senses, not the sensible quality of the external world." (Representation 71) Aquinas wants to stress that *species* is only the means of

¹¹³ It is true that the essence of a extramental thing is universally and not particularly conceived. But is the essence, not the physical structure, what makes metaphysical realism possible. This view, which constitutes the central thesis defended by the current dissertation, is explained in chap. III, sec. 3.3.3.

¹¹⁴ See above chap. I, pp. 16-18.

¹¹⁵ See above chap. I, pp. 18-19, and n. 29.

cognizing the extramental thing, not the object of knowledge. Thus, Tweedale believes that Aquinas holds a direct realist approach as well.

Tweedale also agrees with Pasnau in that *species intelligibilis* renders cognition about its external cause, because judgments are about the extramental thing: a *species* represents the sensible extramental thing that incidentally triggers the cognition.¹¹⁶ But Tweedale explains why the immaterial soul receives indirectly a material extramental thing, although it is not directly affected by its materiality: the contact with the senses produces an internal *species*, and the sensible thing itself is not directly responsible for cognition. The soul, as spiritual being, creates its own sensible *species*, which in turn, by a combination of a phantasm and the active intellect, becomes a *species intelligibilis*. (Mental 38) Consequently, he explains that a represented mental being is not the extramental thing itself, but a representation of its essence:

The talk of similarity remained to some extent, but on account of the immateriality of the intellect this tends to give way to talk of the species representing the quiddity. If fact, it is hard to see at this point how being similar to the object could mean anything more than representing it. (Mental 38)

The fact that the likeness is about the abstracted extramental thing's *form* supports Tweedale's view that Aquinas is a representationalist. The aim of the theory of the *species intelligibilis* is to explain how real physical entities exist in the mind with an "intentional or represented" way of being, (43) and this is why Aquinas denies natural likeness between *species* and extramental thing. (Representation 72) As a final point, it must be noted that he never wonders why Aquinas is usually described as a direct realist.

¹¹⁶ See below n. 118.

Hence, he neither provides further reasons of support for his assumptions, nor counterargument to contemporary authors who affirm Aquinas' direct realist view.

Peter King

King classifies different views in which 'representation' can be understood in the Middle Ages.¹¹⁷ Likewise, he does not hesitate to call Aquinas a representationalist. Accordingly, Aquinas' *species intelligibilis* has properties that make his view qualify for King's first class, *conformality*: "a mental representation represents an object just in case it has the same form as the object." (82) Now, King states that there is a problem with this view: *conformality* implies symmetry, but representation does not; to share the same *form* would imply that both, knower and known, may symmetrically conceive of each other as mental representations. (83) There are three possible answers for this dilemma. First, to understand the representation is symmetrical like conformation; this view was quickly rejected due to the unsound consequences mentioned above. Second, to assume that the knower's soul is qualitatively different than the known thing's *form*; but this explanation only states the mystery behind representationalism, and does not explain why this *form* is a representation in a knower's soul whereas, for the thing that is known, the knower remains a natural *form* (and cognition is not produced). The third answer, which is Aquinas' view, is that there is a difference in the mode in which the extramental thing's *form* exists in the soul: this *form* has only spiritual or intentional existence. (84)

Nevertheless, King regards Aquinas' position as having failed to solve the symmetrical dilemma. First, there is no a clear explanation of why the known *form* only

¹¹⁷ These categories are not exclusive, and they are properly aspects of representationalism rather than subdivisions.

exists within the knower's mind but not in the media, which transmits knowledge.¹¹⁸

Second, Aquinas does not offer an understandable account of what it means to "exist intentionally" in the mind. (84-5)

Additionally, King puts Aquinas in a second type of representational view, *likeness*: "a mental representation represents an object just in case it is similar to the object, or is a *likeness* of it." (88) More specifically, he places Aquinas within a subgroup in which a mental being represents the extramental thing not literally as "likeness," but only by *picturing* it:

Pictures can fail to resemble their subjects in all sorts of ways... a photograph of Socrates, unlike Socrates himself, is a flat colored sheet of (developed) photographic paper. Hence the immateriality of the mental image need be no barrier to its representing material objects, just as the flatness of the photograph is no barrier to its representing three-dimensional Socrates. Aquinas makes this point via a distinction between natural and representational likeness. A picture isn't a natural likeness of Socrates, he asserts, since they don't 'agree in their nature,' but it nevertheless is a representative likeness of him (*QDV* 2, 3, *ad* 9). Pictorial resemblance (representational likeness) is far removed from the way in which twins resemble one another (the natural likeness of the literalist proposal); it need not even be symmetric. (91)

Nevertheless, for King, there is a problem inasmuch as we become more strict in reading of this view of 'picturing.' What makes this extramental thing an object of representation after all? "Even putting aside the difficulty in distinguishing features that matter from those that do not, this explanation cashes out pictorial resemblance in terms

¹¹⁸ This problem, which is beyond the scope of this dissertation, is treated by Pasnau (*Cognition* 44 and ff.), and is related to the immaterial reception of *forms* by the senses, as is discussed in Hoffman (St. Thomas) and Tweedale (*Origins*). The general view of these authors is that Aquinas accepts that immanent act of cognition, the creation of sensible *species*, is a double act in which the senses physically receives the *form* of the extramental thing's properties and the soul creates its own spiritual *forms* as well. But in the case of receiving the essence and/or the *species* of the media, the soul creates these inner *species* without any physical event. It seems, accordingly, that Aquinas recognizes some "epistemic" capabilities to the media's *species*, but he certainly does not fully explained the difference between them and the sensible *species*. See also above chap. I, pp. 9-10, especially n. 16.

of literal likeness: the same color, the same shape, and the like.” A mental image, King explains, does not need to look like the represented thing: features of a representation only need to systematically correspond to features of the represented object (by a series of transformation rules). But he complains that medieval philosophers (in particular Aquinas) do not provide such an account as well, and they leave both ‘likeness’ and ‘picturing’ at the level of intuition. (91-2)

As a final point, he claims that even if there are some transformation rules which can match the features of representational pictures to the extramental features of the represented thing, this view leads in one way or another to the same set of problems of *conformality*:

When a transformation-rule is applied to some item, the result is, ideally, something with features that systematically correspond to properties of the original items. What is it that such a transformation-rule preserves? Well, the natural answer is: *form*... seductive as this picture of picturing is, it only qualifies as an explanation of the representationality of mental representation if it is supplemented by a full (or at least fuller) account of the natural transformation-rules embodied in sense and intellect, as well as of the transformed ‘analogous’ features in the mind. (92)

Consequently, representationalism conceived both as *conformality* and likeness (picturing) leaves mental representations mysterious. However, from the point of view of this dissertation, we want to pose this question: what kind of explanation does King demand? He confesses that his point of view is concerned with the modern notion of mental representation, which emerged in the high Middle Ages. (81, n. 1) This modern view of ‘representation’ fits a combination of his last two classifications: “The mental representation is caused by the represented item” and “the mental representation signified the represented item.” (81) This representational view “is not less than a medieval version of *functionalism*, the idea that determinate content is fully specified by inputs

(covariance) and outputs (linguistic role).” (96) King sees in Ockham a forerunner of contemporary representationalism (like Fodor), in which

there are mental acts of thinking, but there is no need to postulate independent content, or indeed any discernible intrinsic structure to the mental act; it is what it is in virtue of its functional inputs and outputs, not because of its inner nature. (98)

In a word, King is pleased to see Ockham getting rid of medieval representations because, despite the fact that historically, Ockham’s view was not preferable, direct realism is the most “logical” explanation for cognition.

It seems, however, that King’s presuppositions about what a ‘representation’ should be biases the way he analyzes the “old” representational view. Although his article was meant to be an historical account, he does not want to explain why or how representations were conceived. What King has in mind, in order to describe mental representations, is a view that he willingly regards as similar to contemporary representations. Thus, the criticism about how the content of the representation (or the features of mental representations) is related to the extramental thing, is a typical problem raised by a post-Cartesian view of intentionality. As we will see in the next chapter, intentional content becomes the outcome of contemporary phenomenological view on intentionality.¹¹⁹ Yet, this is not what Aquinas (and other medieval representationalist) had in mind, because his representations are about the abstracted essence of the extramental things, not about their status as sensible physical objects.¹²⁰

At any rate, the point for us is that King has no doubts that Aquinas holds a representational view, based on his *species* theory. In fact, he takes it for granted and

¹¹⁹ See chap. III, sec. 3.1.5 and 3.1.6, specifically..

¹²⁰ There are, of course, many issues that are difficult (if not impossible) to explain about medieval representation, which are beyond our scope.

never discusses the opposite view, i.e. that Aquinas is a direct realist. Indeed, the fact that he criticizes Aquinas' account of intentionality and likeness becomes a stronger element in support of our case. Like Pasnau, King also acknowledges Ockham's criticism as further evidence that Aquinas not only is a representationalist, but also that he was viewed as such by his contemporaries.

Despite the fact that not all the authors reviewed in this chapter believe that Aquinas should be regarded as a representationalist, we have discussed opinions which maintain either that the *species intelligibilis* is a mental representational being or that *it* cannot be identified with the individual extramental thing's *form* (or its causal *form*). In some cases, the results of their analyses lead them unwillingly to one of these conclusions. In other cases, Aquinas' representationalism is assumed without any doubts and the important issues are about the way in which this view should be understood. Only a few authors have tried to explain why he is not a direct realist.

The case being, as we have stressed throughout this chapter, that it is necessary to review the established notion of 'representation.' Moreover, it is also necessary to explain how Aquinas maintains an epistemic realism, albeit the use of representations –a recurring criticism usually applied contra representationalist accounts. A related fundamental pending task is to show how the extramental thing is both different and similar to the *species intelligibilis*, which was conceived by Aquinas as a mental abstracted *form*. These problems are the subject of the next chapter, in which we look into Aquinas' own philosophical points of view about cognition.

Chapter III

Representation and Nature

In this chapter, we present and defend the main hypothesis of the present study, namely, that the *species intelligibilis* is a representational mental being and that the content of this *species* is the extramental thing's nature conceived as an intelligible structure. The chapter is divided in three parts. First, the notion of representation is reviewed, and a contemporary understanding of it is compared with its use during the Middle Ages. After examining several notions such as concept, idea, object, intentionality, and representation, we conclude with an explanation of “realist representationalism.” In a second section, the key idea that underlies the *species intelligibilis*, i.e., the notion of likeness, is analyzed. We further explain the various types

of *form* within Aquinas' ontology of the *species* in order to identify the sense in which cognitive mental beings (*species* and images) are to be understood. Likewise, an analysis of *form* helps to make clear the content of representative mental beings, the extramental thing's *form* or nature. Finally, accounts of abstraction and of essence as intelligible structure are added in the last section, Aquinas' epistemological representationalism is justified, and an explanation is offered of how representative acts of cognition take place.

It is important to make clear that in this chapter, as well as in the entire study, there is no textual evidence presented as a final proof of Aquinas' realist representationalism. His work has been so deeply analyzed that it is hard to find any new evidence for demonstrating anything. Moreover, his work is so vast that there is enough support for virtually demonstrating almost any thesis. Our purpose, therefore, is to present a new interpretation of both Aquinas' own texts and Thomistic scholarly studies. Finally, this dissertation does not deal with the epistemological justification of our sensory perceptions, and this chapter, in particular, only intends to show how realist representationalism fits Aquinas' account of cognition. Some objections to this thesis and realist representationalism in general (as compared to direct realism) will be discussed in the last chapter.

3.1 What is a Representation?

It is important to begin with the contemporary understanding of the terms 'representation' and 'represent' because the terms are generally to be taken tied to phenomenological or idealist views. But the terms, 'represent' and 'representation,' have a broader connotation which implies that they are not extensionally reduced to either

idealist or phenomenalist views. An analysis of the notions of concept, object, and intention, which are connected to mental representations, is also necessary. Finally, an examination of the ancient and medieval uses of ‘represent’ and ‘representation’ provides a new understanding of Aquinas’ use of these terms. A broad and historical sense of ‘representation’ enables us to develop a more appropriate understanding of realist representation.

3.1.1 Modern Notion of Representation

Let us start with the modern notion of ‘representation.’ The most straightforward notion of it within an epistemological framework is that one thing stands for another:

2. a. An image, likeness, or reproduction in some manner *of* a thing. **b.** A material image or figure; a reproduction in some material or tangible form; in later use *esp.* a drawing or painting (*of* a person or thing). **d.** The fact of expressing or denoting by means of a figure or symbol; symbolic action or exhibition. (OED)¹

In most cases, these ways of understanding ‘representation’ arise because of its connections to the act of representing, as in 2a, or to a sign, as in 2d.² The view is that a mental being stands for something else. This is the most common meaning in the philosophical literature: “It is a truism that a representation is anything that represents something” (Crane, Representation).³ However, Crimmins proposes a broader view:

Representation is bound up with two phenomena: that one thing (event, state of affairs, etc.) *standing for* another (e.g., a dot on a map standing for a town), and that of one thing *indicating* something about another (e.g., the

¹ Cf. also Webster: “3. The expression or designation by some term, character, symbol, or the like.” These entries also correspond to some meanings of the verb ‘represent’: “6. a. To symbolize, to serve as a visible or concrete embodiment of (some quality, fact, or other abstract concept). 7. a. Of things: To stand for or in place of (a person or thing); to be the figure or image of (something)” (OED). “6. to portray or depict; present the likeness of, as a picture does: *The painting represents him as a man 22 years old*” (Webster).

² Results of representing “something” can be: “11. The act of portrayal, picturing, or other rendering in visible form. 12. A picture, figure, statue, etc.”

³ Cf. also Schwartz: “...The basic notion of a representation involves one thing’s ‘standing for’, ‘being about’, ‘referring to or denoting’ something else.” (536)

height of a mercury column indicating the current temperature).
(Representation 791)

The second understanding, the “indicative” meaning, increases the intension of ‘representation.’ A representation represents (stands) for another thing by indicating another type of entity. What is being represented when one thing is being indicated by another thing? In the case of the thermometer, the mercury column is just a symbol that leads to another being or state of affairs (temperature). Mercury is neither a copy nor a resemblance of the represented being, but another type of entity which indicates something about the represented being: the weather.

In the first case, ‘stand for’ means that there is an entity different from the represented being, which functions as a symbol of it. A symbol is usually understood to have a specific content in itself; yet, it is not necessary that all representations’ contents are different than the represented thing’s features. A representation could be similar to the represented thing, a kind of copy, such as a photograph. In the case of mental beings, the similarity to the represented being could be even closer, like the idea of a triangle and an extramental triangle. But still we are accustomed to think that a mental representation possesses a proper content different than the idea, like a pictogram and the extramental reality it depicts. Accordingly, the nature of an idea or a modern concept is usually thought of in a symbolic way, as an image representing the extramental thing.⁴ We need, then, to turn to concepts and ideas in the next section.

⁴ Cf. in OED: “6. a. The action of presenting to the mind or imagination; an image thus presented; a clearly-conceived idea or concept. b. The operation of the mind in forming a clear image or concept; the faculty of doing this.” And in *Webster*: “9. Presentation to the mind, as of an idea or image. 10. A mental image or idea so presented; concept.”

3.1.2 Concepts and Ideas

A distinction must be made between idea (a concept in early modern philosophy) and concept (the medieval *conceptio*). Descartes, at the beginning of the modern era, borrowed ‘idea,’ which at that time was already used to refer to human thought from the literary and common use of the term.⁵ The term maintained the connotation of the Platonic “Idea,” but it was also being used at that time to refer to the forms or models conceived by an artist’s mind. Descartes, however, gave a new connotation to the term: that ideas are mental representations of entities from the extramental world, even though they do not need to be related to them.⁶ This is why Descartes can distinguish the content of an idea from the being to which it refers.⁷ This independency is found in both Cartesian epistemology and ontology, and it set in motion the modern connotation of “representative mental beings.”

With this modern understanding of ‘idea,’ the term ‘concept’ lost any distinction with respect to the notion of idea: both terms became words to describe “subjective” mental entities.⁸ The slight difference that remains is that ‘concept’ can be understood more psychologically, in its primitive sense of *conceptio*.⁹ But current definitions of both

⁵ For a complete explanation of the literary use before and during Descartes’ time, cf. Ariew and Grene. Cf. also Urmson (119). Cf. also Lagerlund *Representation*, 3-4. According to Him, Richard Rufus of Cornwall was probably the first medieval philosopher who claimed that Ideas were the objects of human thought (early thirteenth century).

⁶ Descartes II 29 (AT VII 42): “So it is clear to me, by the natural light, that the ideas in me are like <pictures, or> images which can easily fall short of the perfection of the things from which they are taken, which cannot contain anything greater or more perfect.” Eventually, human ideas became mental entities independent of their referents.

⁷ II 7 (AT VII 8): “[An idea] can be taken objectively, as the thing represented by that [intellectual] operation; and this thing, even if it is not regarded as existing outside the intellect, can still, in virtue of its essence, be more perfect than myself.”

⁸ For the difference between ‘subjective’ and *subjective*, see below sec. 3.1.4, p. 137.

⁹ “The difference between concept and idea was discussed especially by the rationalistic philosophers. Every idea can be the content of a concept, but not every concept contains an idea. There are concepts which are inconsistent and therefore empty” (Burkhardt 163).

terms display considerable synonymy.¹⁰ The OED offers a philosophical entry for ‘concept’ which matches the notion of ‘idea:’ “Concept: 2. a. *Logic and Philos.* The product of the faculty of conception; an idea of a class of objects, a general notion or idea.” The contemporary philosophical understanding of ‘concept’ is Cartesian and implies a mental content independent of the being that is known.¹¹ The reintroduction of the term ‘concept’ in contemporary philosophical vocabulary is regarded as “the modern replacement for the older term idea, stripped of the latter's imagist associations, and thought of as more intimately bound up with language.”¹²

Within the philosophical literature, concepts are also conceived as constituents of thought (Rey, *Routledge* 506), beliefs (Dretske, *Belief*) or mental acts (Burkhardt 165; Peacocke 74), although they are regarded in themselves as mental representations, images, words, stereotypes, sense features, reasoning and discrimination abilities, and mathematical functions (Rey, *Companion* 185). Likewise, concepts are thought to be the meaning of words (Rey, *Routledge* 507-8), or the way in which one thinks of something

¹⁰ In a common dictionary we find: “Concept: **1.** a general notion or idea; conception. **2.** an idea of something formed by mentally combining all its characteristics or particulars; a construct. **3.** a directly conceived or intuited object of thought.” “Idea: **1.** any conception existing in the mind as a result of mental understanding, awareness, or activity. **2.** a thought, conception, or notion: *That is an excellent idea.* **3.** an impression: *He gave me a general idea of how he plans to run the department.* **4.** an opinion, view, or belief: *His ideas on raising children are certainly strange.* **5.** a plan of action; an intention: *the idea of becoming an engineer.* **6.** a groundless supposition; fantasy...**7. Philos.** **a.** a concept developed by the mind. **b.** a conception of what is desirable or ought to be; ideal. **c.** (*cap.*) *Platonism*. Also called **form**, an archetype or pattern of which the individual objects in any natural class are imperfect copies and from which they derive their being. **d.** *Kantianism*. See **idea of pure reason**.” (Webster) Similar results are obtained for both terms in the OED.

¹¹ According to Burkhardt: “Concept or notion... means the simplest content of our thinking, both in a psychological and in a non-psychological sense. In the first case it stands for a mental act, in the second for its content.” (161)

¹² Rundle, *Concept*. Heat (177), despite the fact that he regards ‘concept’ as a much older term, provides no more than contemporary meanings of the word. The *Entity Theory* he mentions, for instance, is concerned with a relation between concepts and meanings with individual entities. Indeed, sometimes it has been said that the philosophical sense of the word is formulated in the Modern Age. Cf. Fowler: “The philosophical sense of the word (‘the product of the faculty of conception, an idea of a class of objects, a general notion’), first formulated in the 17c., remains in use.”

(Peacocke 74). All these meanings imply mental content and features other than the *simple presentation* of the being that is known and are more related to the modern term ‘idea’ than to the scholastic term *conceptus*.¹³

During the Middle Ages, a concept was thought to be the result of an immaterial and spiritual (mental) act of knowledge. The *conceptio* comes from the verb *concupere*, and this from *capere*, which means to seize (OED; see also Lewis and Short: *capio* to take, catch or seize). Following the Aristotelian-Thomistic tradition, the act of knowledge begins with experience. Sensory knowledge receives sensible *species* and presents them to the imaginative faculty.¹⁴ A *species* is only the likeness by which the human mind can access the knowledge of an extramental thing.¹⁵ It is suitable for *communicating* the essence of an extramental thing:¹⁶ “...the intellect receives a similitude of the thing understood in an incorporeal and immaterial way.”¹⁷ However, the *species* is both the immediate source and the means of knowledge: a sensible *species* is structured from the phantasm (image) which stands for the individual extramental thing, and the intelligible *species* in turn stands for its essence. As a final point, the *species intelligibilis* is produced by the agent intellect and “stored” in the passive intellect, giving birth to the concept.

¹³ For the representation as ‘presentation,’ see below, 3.2.5.

¹⁴ “For the reason why we actually feel or know a thing is because our intellect or sense is actually informed by the sensible or intelligible species.” ST. PP. 14, 2, corpus. *species intelligibilis* is defined as “the likeness of the thing understood” few lines down (*ad 2*).

¹⁵ For likeness, cf. Pasnau Theories 105.

¹⁶ “Hence our intellect by the intelligible species of man in a certain way knows infinite men; not however as distinguished from each other, but as communicating in the nature of the species; and the reason is because the intelligible species of our intellect is the likeness of man not as to the individual principles, but as to the principles of the species.” (ST, PP, 14, 12 corpus) Knowledge is based upon agreement or communication of *form*, since “to be communicable... means to be able to be made or become common to many” (Gracia 25). See below sec. 3.2.1 for likeness as agreement in *form*.

¹⁷ “*Intellectus autem recipit similitudinem eius quod intelligitur, incorporaliter et immaterialiter.*” (InDA, 2, 12, 5 [II, 249])

Until the fourteenth century, a concept was not conceived as something epistemologically different from the extramental thing. As a mental entity, it has no other content than the extramental thing's essence (or features). The general meaning of medieval concepts seems impossible to fit within the contemporary understanding of representation. However, is "standing for or indicating" the only possible means of representing? Should not a representation require a resemblance, a likeness between representing and represented beings? During the Middle Ages it was conceived in such a way. Thus, we must take into account the fact that a representative *species* is able to stand for an extramental thing by *communicating* an essence; the resemblance (likeness) between a *species* and an extramental thing makes it possible because of a *common* essence. As a result, a Thomist representation is conceived as a likeness of an extramental thing.

Other entries in common dictionaries reveal this aspect of representation. In the case of knowledge, the OED defines the verb "represent" as: "**2. a.** To bring clearly and distinctly before the mind, esp. (to another) by description or (to oneself) by an act of imagination. **4. a.** To show, exhibit, or display to the eye; to make visible or manifest..."¹⁸ In these cases, regardless of the result, the action of representing consists of "presenting" and "showing." From an epistemological point of view, representations should not be distinct entities from the represented entities. Ontologically speaking, representations are different from extramental things, but, epistemologically, they could "present" exactly the same thing.

¹⁸ Webster: "7. To present or picture to the mind."

The way in which a concept representatively refers to an entity is called ‘intentionality.’ In modern and contemporary philosophy, the intentional character of a concept is intrinsically tied to the relation between the specific content of the concept and the being to which it refers.¹⁹ On the contrary, within scholastic philosophy, the intentional character of a concept only means that the concept is like a pointer which immediately refers to the extramental thing that is known. The contemporary epistemological meaning of ‘representation,’ unlike ‘intention,’ is not necessarily in any way like the notion of a representation as an immediate reference. For this reason, we need to turn to intentionality next.

3.1.3 Intentionality

Intentionality is an important aspect of a representation in both the medieval and contemporary uses of the term. Differences between them apply, depending on the understanding of the term ‘representation’ (Crane, *Intentionality* 816-7). If a representation is taken in the way medieval philosophers did, that is as an act of knowledge that *re-presents* the extramental thing, it follows that the object of knowledge (the *species*) is essentially like the extramental thing which is known. Whatever enters the mind is not the thing itself but some mental being able to produce knowledge, an image or a mental conception of the extramental thing. The extramental thing’s essence is then abstracted from the *phantasm*, giving birth to a *species intelligibilis*, and the essence (what is known) is thus represented in the knower’s mind.²⁰

¹⁹ Brentano, Twardowski and Meinong hold such a point of view. In such cases, the content of the concept differs from the extramental being because these concepts are representations (in the modern sense—see sec. 3.1.5 and 3.1.6) of the entity that is known.

²⁰ When we know the thing’s features is the same: what we know is the essence of these features.

Although this aspect of intentionality in medieval concepts was taken referentially, today it refers to the relation between a specific idea's content and its referent (Rey, *Routledge* 508; Heat 178). The modern view of the intentionality of ideas is not exclusively referential, but frequently leads to a symbolic relation between a mental being's content and the nature of an extramental being.²¹ Within the conceptual framework of ideas (or modern concepts), the thing known becomes the concept or idea *in se*, without pointing to the extramental entity: it is no longer exclusively the focus of our attention. (Gracia, Suarez 119) A concept is referential or intentional only when one wants to verify whether its content conforms to an extramental entity. This relation is strictly symbolic, linking the content of a mental being with the correspondent extramental thing.

If an idea is regarded as a mental being with its own content, and epistemologically independent of the extramental thing, then the notion of intentionality keeps its symbolic character: it establishes a comparison between mental content and the extramental thing's features.²² Therefore, the first thing we have to do in order to understand the intentional nature of a representation is to compare the difference between the contemporary notion of 'intention' and the medieval *intentio*. The medieval term comes from the Arabic *ma'na*, which was in turn a translation of the Greek *noêma* (νόημα). (Lagerlund, Terminological 11) "*Intentio*," for Al-farabi, meant that which is immediately before the mind. Today we can still get the same meaning in contemporary dictionaries:

²¹ This applies only to the knowledge of extramental beings. There are other problems related to both the referentiality and intentionality of modern concepts that come from this modern representationalist and mentalist view. The knowledge of imaginary, possible and impossible beings is beyond the scope of this dissertation.

²² As was said before, this is only in the act of knowledge of extramental beings.

Intention II. (Specific uses) 11. *Logic*. The direction or application of the mind to an object; a conception formed by directing the mind to some object; a general concept. **First intentions**, primary conceptions of things, formed by the first or direct application of the mind to the things themselves; e.g. the concepts of *a tree, an oak*. **Second intentions**, secondary conceptions formed by the application of thought to first intentions in their relations to each other; e.g. the concepts of *genus, species, variety, property, accident, difference, identity*.²³ OED

The term we are interested in is ‘primary intention.’ It refers to extramental things. Its meaning is better grasped when we consider the adjective form ‘intentional’ instead of the noun:

Intentional A. *adj.* 3. *Scholastic Philos.* Pertaining to the operations of the mind; mental; existing in or for the mind. **Intentional species**, appearances or images supposed to be emitted by material objects so as to strike the senses and produce sensation. (OED)

The adjectival form maintains the medieval meaning, even in common dictionaries, when the term is placed in a philosophical context.²⁴ What is this original meaning? It is an exclusive reference to an extramental thing. The classical Latin *intentio* literally means “a stretching out, straining and tension.”²⁵ However, in a figurative sense, it means “a direction of the mind toward any thing.”²⁶ In the Middle Ages the

²³ The term comes from the Latin *intentio*: “...It is used by scholastic philosophers of the thirteenth and fourteenth centuries as a technical term for a concept. This technical term was a translation of two Arabic terms: *ma’qul*, Alfarabi’s translation of the Greek *noema*; and *ma’na*, Avicenna’s term for what is before the mind in thought. (Crane 816) Cf. also Knudsen 479-80 and the “intention” OED entry.

²⁴ *Webster Dictionary*’s offers these philosophical meanings: “**Intentional** *adj.* 3. *Metaphys.* **a.** Pertaining to an appearance, phenomenon, or representation in the mind; phenomenal; representational. **b.** Pertaining to the capacity of the mind to refer to an existent or nonexistent object. **c.** Pointing beyond itself, as consciousness or a sign.”

²⁵ The Latin term comes from the verb *intendo, intendere*. It has many meanings, but the relevant ones for our purposes are: “II-B. esp. 1 To direct towards any thing, to turn or bend in any direction. 2 To direct one’s thoughts or attention to any thing. C. abs. To turn one’s attention to, exert one’s self for, to purpose, endeavor, intend.” (Lewis and Short 977). Blaise also provides the following definition: “C- comprendre, entendre: *schol.*; ... entendre, estimer, criere, pense: Thom-Aq. *Summ. I, 2, 35, 7a.*” (*sic*, 497)

²⁶ Lewis and Short 976. Among other non-related meanings, it also signifies attention, an application to any thing, design, purpose and intention (as willing).

epistemological side of *intentio* was expanded to become the most important aspect of the word, especially in philosophical discourse, as evident in medieval lexicons:²⁷

Intentio (scol) 1. Application de l'esprit à un objet de connaissance
2. concept, le contenu même de la pensée auquel l'esprit s'applique...
3. sens intentionnel: *quibus (nominibus) intellectus postea attribuit intentiones generum et specierum*, Thom-Aq. *De nat. generis*, (à ces noms abstraits) auxquels l'intellect attribue plus tard les sens intentionnels de genres et d'espèces ... (Blaise 497).

'Intention' has preserved its original meaning in philosophical contexts. Its main characteristic is the reference to, or indication of, objects, whether they exist or not. It is worthwhile to stress that this last aspect is found in Aquinas' *species intelligibilis*, as we will see later. It could be said that the *species intelligibilis* extensionally matches the *intentional species* as defined in the OED. Aquinas frequently uses the term *species intelligibilis* to distinguish what is in the mind of a knower (the essence) from the actual substantial *form* of the extramental thing.²⁸ In the same way, Aquinas distinguishes between the *esse intentionale* or intentional existence of the *species*, and the *esse naturale* (Crane, *Intentionality* 817) or *esse reale* (Blaise, def. *Intentionalis* 497) of the actual being referred to. The parallelism, found between *species* and *intentio*, allows for the synonymy between 'intention' and 'concept.' An examination on the 'objective concept' reveals this connection in Descartes:²⁹

The term 'objective existence,' referring to the existence of something *as* an object of thought, was used by medieval philosophers and by Descartes as a synonym for 'intentional existence;' Descartes thus contrasted the formal, or subjective, existence of actual objects with the objective

²⁷ It also keeps the volitional aspect, as well as the legal (cf. Niermeyer 548).

²⁸ See above chap. I, p. 4. Andriopoulos, on the other hand, claims to have found evidence that Aristotle may have assumed a sense-data theory, which would retrieve the notion of representation to ancient times.

²⁹ In the following section we study the medieval meaning of "object" and "objective" which clearly differs from our contemporary usage. Also, let us remember that *subjective* and *formal* here refer to substance, and not to the "subjects or knower." For "objective concept" see also Hoffman above, chap. II, n. 106.

existence in the mind of objects that are merely thought about. (Chisholm 201)

In this text, Descartes keeps the medieval notion of intentional existence, although he uses another meaning for objective existence.³⁰ For Aquinas, intentionality is an accident of the soul (which he calls *intentio intellecta*, i.e., understood intellection): the mind's attitude when it is directed toward the being known.³¹ The *esse intentionale* consists of, and is identified with, the being known (Knudsen 481).

In philosophical and academic literature, one finds differences between the medieval *intentio* and "intention." Many philosophers explain intentionality in terms of "intentional contents" (Bratman, Acquila 244 and Crane, Intentionality 818-9), probably because that they are influenced by Husserl and Brentano, who speak about "intentional objects" (Crane *Ibid.*, Acquila *Ibid.*, and Chisholm 201-2).³² These twentieth century authors think that intentional objects are "just ordinary objects," or, in our terminology, actual but also mental beings (Crane 818). This view has a strange consequence: if intentional objects are the objects of knowledge, where is the intentionality?³³

³⁰ Chisholm seems to ignore that "objective existence" for Descartes means independence of the mind. In this case, "intentional existence" is not a relation between the species and the actual being (its subjective existence), but between the content of the idea and the extramental being. Descartes has no problem in referring to the features of his own ideas as mentally independent entities. See above n. 6 and 7.

³¹ For accident of the soul, see above chap. I, pp. 10-11.

³² In a famous paragraph of Brentano's work, this view is clearly stated: "Every mental phenomenon is characterized by what the scholastics of the Middle Ages called the intentional (and also mental) inexistence of an object, and what we would call, although in not entirely unambiguous terms, the reference to a content, a direction upon an object (by which we are not to understand a reality in this case), or an immanent objectivity. Each one includes something as object within itself, although not always in the same way" (From *Psychology from an Empirical Standpoint*, quoted by Bealer 400). Bealer interprets this text as follows: "According to this passage, a mental phenomenon is one that includes an object that is not a 'reality' but exists merely 'immanently' or 'intentionally'." It is clear that Brentano has the modern-contemporary view of concepts, as well as a representationalist view of knowledge.

³³ The problem that Brentano is trying to solve is the "inexistent referred object." However, the doctrine of intentional inexistence not only does not solve the problem, but also creates another one duplicating the object of thought. The theory could be useful to solve imaginary, possible and contradictory entities, but not actual entities. Anyway, it is important to note that Brentano's view reintroduces the medieval account of intentionality, but without noting the new understanding of concept inherited from modern philosophy,

From the point of view of phenomenology, then, intentionality is “what constitute[s] something’s being a representation: it is in virtue of the fact that a mental state has an intentional content that it represents what it does.” (Crane *ibid.*) Although intentionality still has a referential nature, it is tied to the specific content of a mental entity (a modern concept, idea, belief or opinion), which is contrasted with the features of an extramental thing. This view of intentionality creates new problems that are beyond our scope here.³⁴ Indeed, this is related to the problem of contemporary representation. On the other hand, a problem arises when the relation between the features of the intentional mental being and the extramental thing are put together:

It does not seem acceptable simply to say that the sense-datum is itself in the mind, a mental entity, since it has properties which neither an immaterial mind nor the physical brain seems capable of possessing. (Bonjour sec. 1.4)

From a contemporary point of view, this is certainly a problem. But from a point of view based on a medieval conception of intentionality, there is no problem. According to Aquinas, the mind is immaterial and capable of having representations (likenesses) of the extramental thing’s essence. Intentional features or essences differ from extramental things ontologically by their mode of being. Nonetheless, they are epistemologically the same as the essences which materially exist in extramental things. Both a *species intelligibilis* and an extramental thing are two instantiations of the same nature. Because the *species* cannot be fully instantiated as an extramental thing, i.e., with its sensible matter, the *species* is a representation of it. However, medieval representation refers to the

i.e., concept with content. Cf. Chisholm (202): “It is not accurate to say that intentional entities were posited in the attempt to account for an intentional reference, but precisely because they were intentional, the attempt did not succeed.”

³⁴ Cf. the enumeration of problems presented in Cummins 442. See also below, n. 50, problems in representation, which are tied to the modern notion of intentionality. Aquinas’ view concerning this problem is presented below.

extramental thing as it is *essentially*; thus it does not *have* the same properties, although it does *have* the intelligible structure of the extramental thing's essence or nature.³⁵

In conclusion, there are two senses in which the intentional character of a representation can be understood. Intentionality can be seen as an exclusive by referential attitude as is the case of the medieval understanding: it is the direction of the mind towards a thing. It does not conflict with either *species intelligibiles* or concepts, because these are conceived as likenesses of things' essences and, thus, they merely direct the mind towards extramental things by their essences. Alternatively, the modern and contemporary notion of intentionality establishes a symbolic relationship between the representation's content and the features of an extramental thing. Consequently, although the philosophical notion of "intention" maintains the basic medieval sense, our current understanding of concepts as ideas usually does not.

Despite the fact that today we probably cannot think of representative concepts without a specific content different from the reference to the being that is known, we must try to keep in mind that this is not the way in which scholastic authors thought of representations.³⁶ The objective existence of ideas assumed by Descartes and intentional objects of Phenomenology have a common characteristic: as objects of knowledge, "objects" of the mind, they are epistemologically independent beings. It is not only that they are ontologically different from the extramental things they represent; it is that they are "things" in themselves, with a content different than their represented extramental

³⁵ See below, sec. 3.3.2 for the ontology of natures and intelligible structures.

³⁶ Cummins says, "It is uncontroversial in contemporary cognitive science that cognitive processes are processes that manipulate representations. This idea seems nearly inevitable" (442).

things: “The Idea seems to differ from the Concept by the fact that it is made the object of a direct intellectual examination.” (Carlo 65)

For scholastics, on the other hand, the object of knowledge was merely a reference, a pointer, to an extramental thing. Today, due to the influence of modern ideas and intentionality, when we think of “objects of knowledge,” we think of “objects,” a kind of entity that may have the same ontological status as that of extramental things: they are “mental things.” The term ‘object’ has lost its original meaning, and this contributes to the confusion of mental and extramental beings. We must, therefore, turn to the notions of object, objective, and object of knowledge in what follows.

3.1.4 ‘Object,’ ‘Objective,’ and ‘Object of Knowledge’

The terms ‘object’ and ‘objective’ are the counterpart of ‘subject’ and ‘subjective’ respectively. ‘Subject’ comes from the Latin *subjectus*, which is derived in turn from *subjicio*: *sub* plus the verb *iacere*, meaning to throw, lay, place or bring under. Thus, ‘subject’ is comparable with ‘substance’ (from *substo*, *substare*: *sub* + *stare*, to stand, be under or among, to be present), when both terms refer to a thing of which something is said. In the same way, both can be regarded as meaning “subsistent entity,” or “real being” (Lewis and Short).³⁷ ‘Object,’ on the other hand, comes from *objectus*: *ob* + *iacere*, which means to throw or put before or toward, and to hold before or out. In this aspect, it is related to the Latin verb *obsto*, *obstare*: to stand before or against any thing. The first meaning of *objectus* is whatever is put against, is in the way of, or is opposed to

³⁷ Cf. also the medieval dictionary of Blaise, the terms *subjicio*, *substancia* def. 3 and 4.

something. However, *objectus* is translated, in a transferred sense, as “that which presents itself to the sight, an object, appearance, sight spectacle” (Lewis and Short).

In ancient and medieval epistemology, an *objectus* is conceived as something that is presented to the mind but lacks self-subsistence. An *objectus* is what a knower (as a *subjectus/substantia*) knows about another “*subjectus*” (another actual extramental thing).³⁸ Besides, and more importantly, what is known is not *this object* but a real and actual being, i.e., another subject/substance by means of this object. An “object,” then, does not mean a mental entity subsistent in itself (as an idea independent of the known thing), or “an extramental thing” (a subject or substance), but a being that is known inasmuch as it is the “object of knowledge” in a knower’s mind.

Today, what comes to mind when someone hears the word ‘object’ is “1. anything that is visible or tangible and is relatively stable in form” (Webster). We also think of an object as an extramental entity opposed to ‘the subject,’ i.e., the knower of this ‘object’ (indeed, after Descartes, the term ‘subject’ has been restricted to mean ‘knower’). This means that the subject-object correlation has both different metaphysical and epistemological connotations than those common in the Middle Ages. In a contemporary metaphysical sense, “object” is now defined as a self-subsistent entity:

6. *Metaph.* A thing or being of which one thinks or has cognition, as correlative to the thinking or knowing *subject*; something external, or regarded as external, to the mind; the non-ego as related to, or distinguished from, the ego; also extended to include states of the ego, or of consciousness, as thought of or mentally perceived. (OED)³⁹

³⁸ Cf. Ferrater Mora, 2403, Lalande, II (A and B) 531, Abbagnano 617.

³⁹ It is worth mentioning that the texts from which this definition is taken are from authors who wrote after the sixteenth century. Cf. Ferrater Mora III, 2404 for the change of meaning. For a contemporary understanding, cf. Foulquié 488, B2: “Identifié à la chose en soi: ce dont l’existence est indépendante de la connaissance qu’en ont les sujets pensants.”

Accordingly, when we think about something as an ‘object,’ we employ the term in a sense very different from the one that medieval authors used. In fact, this difference usually makes what medieval authors wanted to say incomprehensible, unless we keep in mind that our present meaning of ‘object’ biases our reading. Even for specialists, it is very difficult to avoid confusion because of the pervasive contemporary meaning of the term.⁴⁰ Lalande is an example of someone who falls prey to this misunderstanding. He attributes to Scotus this meaning of ‘object:’ “Ce qui possède une existence en soi, indépendante de la connaissance ou de l’idée que des êtres pensants en peuvent avoir.”⁴¹ He is quoting and interpreting this text: “*Objectum non potest secundum se esse praesens intellectui nostro, et ideo requiritur species quae est praesens et supplet vicem objectivi.*”⁴² In this passage, the term *objectum* stands for the thing itself, and Scotus is denying that the thing is in the mind, but he is not asserting that an object exists as a self-subsistent entity, or that it is “independent” of knowledge.⁴³ In the same way, when some scholars read Aquinas’ texts about “objective existence” or the “object of knowledge,” usually they interpret these commentaries in a modern sense, and misunderstand the expression “object of knowledge.”

There remains, however, a modern sense in which ‘object’ keeps its original meaning: “5. anything that may be apprehended intellectually: *objects of thought.*”

⁴⁰ Cf. the use of the word object by Pasnau, even though his book is about medieval epistemology.

⁴¹ II, 531. Cf. also Blaise 625. This happens even when Blaise offers a totally different meaning for *objectivus*, which matches with our interpretation of objective and, of course, with that of Scotus himself.

⁴² Lalande quoting Eisler, sup. V°, 3° éd. p. 913.

⁴³ What Scotus did is to separate the content of the concept from the act of thinking. This is what will be called “objective concept” and, despite that this separation would help Descartes to postulate modern Ideas, in Scotus does not mean “independent” existence but “reference” to the extramental being. There is an indication that Cajetan distinguishes between object as a thing and as an object (of thought). Cf. Doyle “Extrinsic.” (66) A contemporary author, Martinich, offers a similar description in terms of *objectum quo* (by which) and *objectum quod* (known object). They are, however, exceptions to the rule, as in the act-object theory describe by Pasnau. (Theories 290-1)

(Webster) This is tied to another common meaning: “2. a thing, person, or matter to which thought or action is directed: *an object of medical investigation*,” and “3. the end toward which effort or action is directed; goal; purpose: *Profit is the object of business*” (Webster). In these senses, ‘object’ seems to reflect only the direction in which our mind moves. Moreover, these senses match the modern sense of the term ‘objective.’⁴⁴

‘Object of knowledge’ is, therefore, a useful expression for our investigation. But the use of the term ‘object’ to refer to an extramental thing is not accurate. Expressions such as ‘objective reality,’ ‘real object,’ and ‘known object’ lead to confusion because the uses of ‘object’ and ‘objective’ have changed since the middle ages. Aquinas uses these terms, and they should be accorded their original meaning.

To sum up, when medieval authors use the word ‘object,’ they actually mean a reality outside the mind, an extramental thing, but regarded as “perceived by the mind.” They do not mean that this object in itself is a subsistent being (a “subject” or substance). The term ‘object of knowledge’ is not only appropriate, but also entails the best way in which we can understand the medieval meanings of ‘object’ and ‘objective.’ Taking into account this terminological clarification, we must now move on the ancient and medieval understanding of representation.

3.1.5 Medieval Notion of Representation

There is an odd definition of ‘representation’ in the OED; it is a very old usage of the verb ‘represent:’ “1. a. to bring into presence; *esp.* to present (oneself or another) *to* or

⁴⁴ Cf. also OED Def. 4 and 5a.

before a person.”⁴⁵ In this case, representation means simply presentation, it denotes “to present again or anew” (*Webster*). This definition supports the position that there is a mental being which merely “re-presents” the extramental thing. The only content of this representation is an immediate reference to the extramental thing by resembling it. This is the opposite of the notion of the modern “idea,” which “represents” an extramental thing (with different content or features), by linking symbolically the mental content with the extramental thing’s characteristics.

In Classical Latin, the epistemological aspect of the verb *repraesento* means “I. [A] To bring before one, to bring back; to show, exhibit, display, manifest, represent (class.) ... B. To represent, portray, etc. ... II C. To represent, stand in the place of (late Lat.): *nostra per eum repraesentatur auctoritas*, Greg. M. Ep. 1.1.”⁴⁶ Lagerlund notes that the term was hardly used in Classical Latin (15). The term was mainly introduced during the twelfth century in the translation of the Greek term *parhistemi* (παρίστημι: to set before) and the imaginative faculties of Aristotle’s *De anima*.⁴⁷ These meanings were preserved in Medieval Latin⁴⁸. ‘Represent’ just means “to present or present again,” and not “stand for” or “indicate” in the modern epistemological sense.⁴⁹ The medieval

⁴⁵ Other rare and unused definitions of the verb are: “4. a. ...†To display in one’s bearing or air. Now rare.” It matches the disused def. of “representation”: “†1. a. Presence, bearing, air. *Obscure*.” Both meanings imply the above quotation’s explanation as well.

⁴⁶ Lewis and Short (1571). Cf. also the noun *repraesentatio*: “A bringing before one; a showing, exhibiting, manifesting; a representation (post-Aug.).” (*ibid.*). The case of standing for another (represent) is usually used to speak about personal representations.

⁴⁷ For a complete account, cf. Lagerlund’s article “Terminological.”

⁴⁸ Blaise (791): “2. Presenter, offrir ... 5. Rendre present de nouveau.” Cf. also in Niermeyer: “3. [repraesentare] aliquid, aliqui: *presenter, offrir — to present, offer* ... 6. *signaler, faire connaître — to state, mention* ... 7. *aliquem: *représenter, remplacer — to represent*.” (910)

⁴⁹ The first use of mental representation as mental signs or concepts was by Garlandus Composita and Peter Abelard, but they maintain an appellative sense, such as “intentional reference.” Ockham was the first to attribute representation to concepts in linguistic terms. Peter Ailly, as well as other occamists, used the term in a way similar to our modern use. Cf. Lagerlund 25-27.

meaning implies an immediate reference, in the same way that medieval philosophers conceived intentionality.

This view of representation as an immediate reference to the being that is known can be plainly seen when we look at the current problems of both intentionality and representability. Contemporary authors are frequently devoted to establishing the relationships among signs, words, images, ideas, sentences, and other representative entities (which are conceived of as mentally subsistent beings having their proper content and features) with the being they refer to. The current problem centers around the question of how the content (epistemologically different from the reference to a being that is known) symbolically “represents” the being that is known. This creates a new universe of metaphysical problems usually related to the philosophy of the mind, but this problem does not exist within a metaphysical realism.⁵⁰

Being is the first and adequate object of the intellect, and knowledge is the immanent action which possesses the form of the thing in the same way that a living possesses food, so that when you know a tree, is not like examining a snapshot which you have adquired after the fashion of the camera , or Cartesian machine... If this ontological theory of knowledge is true, then to ask the question how do I know that I know in the critical sense, is the same type of question as how do I eat that I eat. There is no eating without a being to eat , and there is not knowing in the primary act of knowledge without a being to know. The only way such a question makes sense is if, when you know, you know directly your own mental contents, your ideas. But then the problem is, of course, to relate the two, the knowledge and reality, an impossible task. (Carlo 63-64)

Represento means “to present” before the intellect the being that is known, and nothing else. This connotation of ‘representation,’ as conceived in the Middle Ages, is

⁵⁰ Cf., for instance, Schwartz: “The major debates here have been over the nature of this connection between a representation and that which it represents.” (536) Cf. also other statements of the problem in Aquila 244, Crane Intentionality 818, Chisholm 202, Crimmins Representation 792-3, and Cummins 442 among many others.

shared by Aquinas; he relates it to the spiritual and an immaterial condition of the *species*, which is an intentional and representative mental entity (in the sense explained above), different from our modern concepts or ideas. Besides, *species* as representations are ontologically different from the beings that are known, but their nature consists of referring, representatively and intentionally, to these extramental things.

If we reflect on the way concept, intentional character, and object of knowledge are conceived in the Middle Ages, a *species* as the likeness of an extramental thing is understood as a representative mental being, but without being something other than an immediate reference to the extramental thing. The medieval epistemological lexicon allows Aquinas to use ‘representation’ without meaning a mental entity different from an extramental thing. The *species* as a representation is not an “intentional object” nor does it have an “objective existence” (in the modern sense). As a representative mental entity, the *species* “presents” the extramental thing before the intellect, and it can do so because it is a likeness of the extramental thing. In this way, a *species* can represent “reality.” Being a representative entity does not prevent it from being “like” the extramental thing.

3.1.6 Realist Representationalism

From all this, it should be clear that medieval scholastics has a different understanding of representation, object, concept, and intention than are current today. But it is these understandings that we need to explain how Aquinas’ view of ‘representation,’ and the position we have referred to as ‘realist representationalism.’ Our task is to explain how we can understand the likeness between a *species* and its extramental thing. We begin by focusing on representation in general, as likeness, and continue in the next

section with the specific meaning of ‘likeness’ in the context of Aquinas’ account of cognition.

Due to the historical changes in the meaning of ‘representation,’ it is important to approach the term in a way which preserves the medieval understanding. We cannot longer use simply ‘representation’ to refer to this view, a representation of the extramental thing that is known, epistemologically endowed with the same features, but ontologically existing in another way. Taking into account differences in the concept of ‘representation,’ the use of modern or contemporary views can be misleading. We saw ‘representation’ applied to Locke’s account of knowledge (usually called “representative realism” or “indirect realism”), and Bonjour also attributes this view to Descartes:

The more obvious and historically prior view, at least approximately by Descartes and Locke, is *representative realism*: the view that our subjective sensory experience (and the beliefs that we adopt on the basis of it) constitute a *representation* of the external material world, one that is caused by that world and that we are justified, on the basis of something like a causal explanatory inference, in thinking to be approximately accurate. (sec. 2)

Bonjour is here referring to an “approximately accurate” apprehension of reality because he has in mind the distinction between primary and secondary qualities, forged in the Renaissance and emphasized by Leonardo, Galileo, Descartes, Locke, and other modern thinkers.⁵¹ This account differs from the realist representationalism used in this dissertation insofar as it does not entail a metaphysical realism. “Realist representations” are supposed to be the likeness of the extramental thing. Pierre Grenon has already used

⁵¹ “Thus the result is a kind of skeletal picture of the material world, one that has to be “fleshed out” in various ways in order to even approximate the common-sense picture of the world. It is useful to think of the representationalist explanation as starting with spatial features at first and then adding further refinements of that starting point.” (sec. 2.2)

this new term. He wants to depart from the modern and contemporary meaning of “representative realism.”⁵²

I hold a position which I will call realist representationalism. According to this position, the basis for knowledge representation should be, not representations of reality, but rather reality itself ... In my opinion, knowledge representation should take one step closer to earth and assume the project of trying to depict reality itself. My position is thus a form of realism as contrasted with that of conceptualism. (*sic*, 3-4)

Grenon’s position matches the medieval notion of representation. In fact, Grenon agrees with the metaphysical realism that underlies Aquinas’ philosophy, though he has Aristotle’s metaphysics in mind. This is opposed to the contemporary view of representations as well as to ontological presuppositions about the relation between extramental things and concepts/ideas:

The distinction between things (or real entities) and the corresponding concepts is acknowledged by the knowledge engineer; in his actual work, however, the things are neglected to the benefit of their conceptual proxies ... In contradistinction, realism maintains in Aristotelian spirit that in addition to the general terms in language and the conceptual universals in our minds, there are also universals in re, i.e., universals really existing in the world (existing, on Aristotle’s view, in their instances). These universals are not concepts; they are invariants in the things themselves. (*sic*, 5)

The difference between realist representationalism and representative realism can also be appreciated from another contemporary approach. It is a commonplace, especially in cognitive science, to characterize mental representations as either analogue or digital (Schwartz 538).⁵³ The distinction is related to computational representation and to the

⁵² Fiona McPherson also uses this term once, in a footnote (Perfect Pitch, n. 18), opposing it to a view in which it is not appropriate to think that there is “a good reason for thinking that the experience contained a content and a phenomenal character [is related] to the implicit content.” She does not provide further details on her use of this terminology.

⁵³ We should not confuse “analogue” (US “analog”) with the adjectives “analogical,” “analogic,” “analogal” or “analogous” adjectives, because the latter have a meaning related to the noun “analogy,” with a special shade in philosophy and logic: “**7. Logic. a.** Resemblance of relations or attributes forming a

computer as a model of the mind (in cognition). The dichotomy is emphasized by Goodman (159), who poses the difference in syntactic and semantic terms. Analogue symbols are dense, whereas digital representations are numerically discernible.⁵⁴ This distinction, nevertheless, has been criticized, and further interpretations of these terms have been offered.⁵⁵

An analogue representation is usually regarded as a resemblance to a referent, i.e. a reproduction of what it is designed to represent (Blachowicz 55 and 61). This is probably why many “theorists assume that analogue signs are not ‘real’ representations,” because “only [digital] symbols, free as they are from physical constraints... exhibit intentionality or implicate mind” (Schwartz 539). Accordingly, perception is the “product of both transduction and cognition” and must include inferential, propositional, and /or computational components.⁵⁶ In this view, the function of a representation is to take another thing as symbol, i.e., as an indicator, like the mercury in the thermometer

ground of reasoning. **b.** The process of reasoning from parallel cases; presumptive reasoning based upon the assumption that if things have some similar attributes, their other attributes will be similar.” (OED). The Former, conversely, has been used since the second half of the twenty-century to characterize the performance of some computer machines (thus, analogue and digital computers).

⁵⁴ “The distinction between pictorial and discursive representation can be characterized in terms of the distinction between analog and digital representation (Goodman 1976). This distinction has itself been variously understood ... though a widely accepted construal is that analog representation is continuous (i.e., in virtue of continuously variable features of the representation), while digital representation is discrete (i.e., in virtue of features a representation either has or doesn't have) (Dretske 1981). (An analog/digital distinction may also be made with respect to cognitive processes. (Block 1983.))” (Pitt)

⁵⁵ Lewis demonstrates, however, that this distinction is inadequate, because the key to the distinction seems to be the way in which the numerical data is understood. Thus, a differentiated and non-dense numerical interpretation of a resistor continues to be analogue (322; 326. *Vide* also Blachowicz 68). More contemporary discussions —within the so-called Computational Theory of the Mind— about what kinds of representations the brain uses are held between proponents of Classical Architectures and proponents of Connectionist Architectures. “The Classicists (e.g., Turing 1950, Fodor 1975, Newell and Simon 1976, Marr 1982, Fodor and Pylyshyn 1988) hold that mental representations are symbolic structures, which typically have semantically evaluable constituents; and mental processes are rule-governed manipulations of them. The Connectionists (e.g., McCulloch and Pitts 1943, Rumelhart and McClelland 1986, Rumelhart 1989, Smolensky 1988) hold that mental representations are realized by patterns of activation in a network of simple processors (“nodes”), and mental processes consist of the spreading activation of such patterns. The nodes themselves are, typically, not taken to be semantically evaluable; nor do the patterns have semantically evaluable constituents.” (Pitt)

⁵⁶ Pylyshyn and Fodor, quoted by Blachowicz (58).

(Blachowicz 58). Digital representations are privileged in current epistemology because they match with the contemporary way in which we conceive intentionality and modern “ideas.”

This corresponds to the modern understanding of representation. But for the medievals there is no problem in identifying representation with resemblance. In fact, a “real” representation corresponds with an accurate resemblance to the extramental thing: that is what Aquinas called likeness (*similitudo*). If an analogical representation is accurate, the mind can grasp the essence of the represented extramental thing. This is what happens with an accurate map in respect to our current position: we can know where we are; or with a video in respect to the external appearance of a person: we see her face as distinctly as if we were seeing her in person. A representation must not necessarily be an extrinsic symbol of the extramental thing, nor a different entity that digitally points at but differs from the represented thing. A good analogical representation “re-presents” the extramental thing to the mind.

Beuchot establishes a similar distinction between formal and instrumental signs. (58-9) A formal sign like the *species* represents something different from itself, but it does it by representing the thing in itself, diminishing its cognitive attention. On the other hand, an instrumental sign also represents something different, but it does it by constituting itself as an object; thus, it attracts attention to itself, in order to “redirect” the cognitive attention towards the represented thing. Beuchot points out that the formal sign and the represented thing “are the same essence with different existence,” whereas the instrumental sign requires knowledge of itself (as mental being). This is clearly the difference between the Thomist concept and the Cartesian idea, as well as the difference

between realist representationalism and (modern) representative realism. An instrumental sign is a digital sign, which keeps a symbolic relation with its represented being, whereas the formal sign is an analogical sign. Thus, the more it resembles the represented being, the better representation it is.

Hence, representationalism is the view that knowledge of extramental things comes to the mind through representations which in turn are mental beings ontologically different from the extramental things that they represent. However, epistemologically speaking, the information (the content) of this mental being matches the represented extramental thing. That is why they are “realist” representations. The only characteristic of this type of mental representations is that they immediately refer to extramental represented beings. They are merely intentional mental beings, and in looking at them we do not look at anything but the same extramental things which are represented.

How is it possible that what is in the mind matches an extramental thing? How can two ontologically different entities be alike? This requires thereof need to address the issue of “the likeness of the extramental thing.” Keeping the sense in which *species intelligibilis* has been understood –as a representation or likeness of the extramental thing– we must turn to “likeness.” Aquinas’ epistemology is filled with many mental beings: *species*, concepts, mental words, phantasms, images, etc., but we are especially interested in the first mental being that he claims conveys the extramental thing’s essential: the *species intelligibilis*. In fact, we are particularly interested in what is called “impressed *species*,” which is formed by the abstractive act of the agent intellect on the phantasm. The center of our attention is the ontology of the *species intelligibilis*, which

represents extramental entities. Our concern is the way in which this representation is possible, and the viability of realist representations in Aquinas' epistemology.

3.2 Likeness and Formal Identity

We turn, then, to the analysis of Aquinas' ontology of cognition. The Thomist point of view is usually metaphysical and in some respect psychological (natural philosophy), thus neglecting epistemological issues, such as these involved representationalism and direct realism.⁵⁷ Notwithstanding, this allows us to penetrate deeper into the ontological framework of Aquinas' account of cognition. Accordingly, we take up the notion of "likeness." After explaining the way in which the *species* represents an extramental thing by means of likeness, we continue with the ontological description of different kinds of *form* used in cognition. This leads us to a better understanding of the intelligible being of the *species intelligibilis*, and to a description of its content, often identified as an extramental thing's *form*. The sense in which Aquinas explains this *form* reveals an intelligible structure, which plays a central role in the act of cognition.

3.2.1 Representation as likeness in Aquinas

We turn now to the *species intelligibilis*, and the notion of 'likeness' (*similitudo*). Thus, Aquinas defines the *species* as follows:

The intelligible species is a similitude of the very essence of the thing, and it is in some way the very quiddity and nature of the thing according to intelligible to-be [*esse*], and not according to natural to-be, as it is in things.⁵⁸

⁵⁷ See chap. I, pp. 18-19, and especially p. 14 n. 29.

⁵⁸ *Quod.* VIII 2, 2c. (trans. by Peifer) "Unde species intelligibilis est similitudo ipsius essentiae rei, et est quodammodo ipsa quidditas et natura rei secundum esse intelligibile, non secundum esse naturale, prout est

Among the many ways in which Aquinas employs *similitudo*, there is (a) a general sense in which *it* means a likeness in some respect and (b) a more restricted sense in which *it* refers to likeness as picture, or *species*.⁵⁹ In (a), we are concerned with *similitudo* understood as “representation” and “according to nature.”⁶⁰ The question is whether cognition by *species* implies natural likeness or representational likeness.⁶¹ Natural likeness, defined as exact copy of a *form* or an instantiation of nature as a being, implies *communication in form*: *communication* means “to make common” to many.⁶² Now, in both natural and representational likeness there is a *communication of form* to other, but there are three kinds of likeness (*similitudo*) regarding the degree of *formal communication*; the first two are relevant for our study:

Likeness is based upon agreement or communication in form ... it varies according to the many modes of communication in form. Some things are said to be like, which communicate in the same form according to the same formality [*rationem*], and according to the same mode; and these are said to be not merely like, but equal in their likeness; as two things equally white are said to be alike in whiteness; and this is the most perfect likeness. In another way, we speak of things as alike which communicate in form according to the same formality, though not according to the same measure, but according to more or less, as something less white is said to be like another thing more white [*sic*]; and this is imperfect likeness. (*ST* 1a 4, 3 c)

in rebus.” Murphy translates *esse* by ‘being.’ (268) Cf. also: “The intelligible species... which is the likeness of the thing understood.” (*ST*, 1a 14, 2 ad 2) “An intelligible species is the image (*similitudo*) of something understood.” (*SCG* I 46, § 5).

⁵⁹ Deferrari 1027 and ff. There is a third set of meanings, a carved or sculptured picture.

⁶⁰ *Similitudo conformitatis in natura seu secundum convenientiam in natura* and *similitudo representationis seu quantum ad representationem*.

⁶¹ As examples of natural likeness Deferrari cites: “The sacramental signs signify by reason of their natural likeness.” (*ST* 3a 39, 3 ad 4) Also, to the question “whether it is fitting that God should adopt sons?” Aquinas answers: “wherefore, as by the work of creation the Divine goodness is communicated to all creatures in a certain likeness, so by the work of adoption the likeness of natural sonship is communicated to men...” (*ST* 3a 23, 1 ad 2) In extramental entities, different species and genera are due for differences in kind, but the degree of difference in accidents and substance are due to the degree of *forms*. Cf. Clark 124.

⁶² “To be communicable, therefore, means to be able to made or become common to many” (Introduction 25) See above chap. I, p. 28 and n. 49. Cf. also Gracia Individuality, 45: He defines *incommunicability* as the impossibility of being instantiated; thus communication is only possible when a *form* or nature is “reproduced” or “made” in another.

The first and perfect kind of likeness is through a complete *communication* of *form* in all aspects: the same mode and *ratio*. The second kind of likeness is “less” perfect, because it is a *communication* of a *form*, but in a different degree. There is also a third type, the least similar, because the difference is not only in mode but also in *formality*. This type corresponds to a *communication* of the same *form* but with different *formalities*, as during physical causation, and the quality of the likeness depends on the “level” of relation between the agent and the patient.⁶³ We are not interested in this third type, though.

If a *species* is a likeness of the extramental thing, a *form* is made *common* by the act of cognition; the first two types of ‘likeness’ described above imply instantiation of *form* considered as essence in different individuals by means of cognition.⁶⁴ The problem is to determine in which degree the *communication* of a *form* occurs in cognitive acts. In natural likeness there is a complete *communication*, but in representational likeness, there is a *communication* of *form* in the same *ratio*, but in different degree.

The first sense of likeness (a) seems to support the idea that the extramental thing’s causal *form* and the *species intelligibilis* are the same thing, which would imply no realist representation at all. Accordingly, if *representatio* is understood as “presenting

⁶³ It could be a *communication* of *form* between two individual things of the same species, or two individuals related at the level of genus but from different species, and so on. “For since every agent reproduces itself so far as it is an agent, and everything acts according to the manner of its form, the effect must in some way resembles the form of the agent. If therefore the agent is contained in the same species as its effect, there will be a likeness in form between that which makes and that which is made, according to the same formality of the species; as man reproduces man. If, however, the agent and its effect are not contained in the same species, there will be a likeness, but not according to the formality of the same species; as things generated by the sun’s heat may be in some sort spoken of as like the sun, not as though they received the form of the sun in its specific likeness, but in its generic likeness. Therefore if there is an agent not contained in any “genus,” its effect will still more distantly reproduce the form of the agent, not, that is, so as to participate in the likeness of the agent’s form according to the same specific or generic formality, but only according to some sort of analogy; as existence is common to all. In this way all created things, so far as they are beings, are like God as the first and universal principle of all being.”

⁶⁴ See below n. 70 on instantiation.

again” in a metaphysically realist way, as Aquinas does, it seems that whatever is presented anew to the mind is the extramental thing’s *form*. Now, it is true that the causal *form* and the *species* (the *species* represents the thing) are alike according to the same *formality*. However, within the restricted sense of likeness (b), there is a distinction between (1) natural likeness and (2) corporal, sensible, and intelligible likeness (Deferrari 1028). This implies that a cognitive likeness is different from a natural type of likeness. To be sure, Aquinas clearly states that the extramental thing exists in our mind according to the way in which a knower can understand it, not as it exists in its natural mode of being:

For even in sensible things it is to be observed that the form is otherwise in one sensible than in another: for instance, whiteness may be of great intensity in one, and of a less intensity in another: in one we find whiteness with sweetness, in another without sweetness. In the same way the sensible form is conditioned differently in the thing which is external to the soul, and in the senses which receive the forms of sensible things without receiving matter, such as the color of gold without receiving gold. So also the intellect, according to its own mode, receives under conditions of immateriality and immobility, the species of material and mobile bodies: for the received is in the receiver according to the mode of the receiver. We must conclude, therefore, that through the intellect the soul knows bodies by a knowledge which is immaterial, universal, and necessary. (*ST* 1a 84, 1)

Hence, there is a difference in the mode of being between the extramental thing’s *form* as it exist in sensible reality and the *species intelligibilis* which represents it. The example that Aquinas uses here in order to explain the differences in modes of beings is the same example that he uses in the above paragraph of the *Summa* about types of likeness: a difference in mode of color. Cognition, then, is not acquiring an extramental thing’s causal *form* as it is, *communicated* by natural likeness in the same mode of being and the same degree of *ratio*, but in a different mode of being, as a representative *species*:

The knowledge of every knower is measured by the mode of the form which is the principle of knowledge. For the sensible image in sense is the likeness of only one individual thing, and can give the knowledge of only one individual. But the intelligible species of our intellect is the likeness of the thing as regards its specific nature, which is participable by infinite particulars; hence our intellect by the intelligible species of man in a certain way knows infinite men; not however as distinguished from each other, but as communicating in the nature of the species; and the reason is because the intelligible species of our intellect is the likeness of man not as to the individual principles, but as to the principles of the species. (*ST* 14, 12 c)

This is why, although Aquinas uses '*form*' for the mental representation, he uses more often the terms '*species*' and '*similitudo*.' This terminology proves to be useful in order to distinguish intentional being from extramental being.⁶⁵ Even when he says that we have the immaterial *form* of an extramental thing in our mind, he does not mean a causal *form*, but the *form* of the thing considered as essence. In fact, the way Aquinas uses the verb *representare* implies that the *species* is representing an extramental thing's essence: if 'represent' means 'to present anew,' what is presented to the mind is the essence of the extramental thing, and not the thing itself or its *form*, because this is ontologically impossible. 'Likeness' is not merely an arbitrary term, equivalent to 'same' or 'identical:' it is intended to stress that a representation of a thing's *form* (considered as essence) is an epistemological re-presentation of the essence in the mind, and not a reproduction of the extramental thing's causal *form*. In fact, because the extramental thing is not cognized in its natural mode of being, "natural likeness" is not required in cognition:

There are two ways of considering the mutual likeness between two things. First, we can consider them inasmuch as they agree in a common nature. Such a likeness between the knower and the known is not required; indeed, we sometimes see that the smaller the likeness, the sharper the

⁶⁵ See above chap. I p. 4.

cognition. For example, there is less resemblance between the intellectual likeness of a stone and the stone than there is between the sense likeness and the stone, for the intellectual likeness is farther removed from matter; yet the intellect knows more profoundly than sense. Secondly, the likeness between two things can be considered from the point of view of representation. Such a likeness of the knower to the thing known is necessary. (*QDVI*, 2, 3 *ad* 9)

Additional support for identifying cognitive acts with representational likeness is found from the fact that ‘likeness’ does not mean “the same thing,” but only “the best possible apprehension” of an extramental thing. This is clear because Aquinas differentiates the likeness of mental images (*phantasmatas*) from other less perfect “images” or “traces:”

Because an image differs from a trace in this respect: that a trace is a confused and imperfect likeness of a certain thing, whereas an image represents this thing in a more appropriate manner according to all its parts and the arrangement of them, in the best way in which they can be internally understood.⁶⁶

Aquinas distinguishes “images” from “likeness” itself: in general, likeness means similarity of any kind; thus, it is “a preamble of image,” more general and imprecise. However, he also says that another way to refer to likeness is as “the expression and perfection of the image.” (*ST* 1a, 93, 9 c) This perfection, in the case of the *species intelligibilis*, is not completely achieved because we do not have an exact copy of the extramental thing or its causal *form* in the mind, but only a high quality degree in a representational way: “...when Hilary says ‘of a thing which adequately represents another,’ this is to be understood of a perfect image.”⁶⁷ The *form communicated* in

⁶⁶ “...Quod imago in hoc differt a vestigio: quod vestigium est confusa similitudo alicujus rei et imperfecta; imago autem repraesentat rem magis determinate secundum omnes partes et dispositiones partium, ex quibus etiam aliquid de interioribus rei percipi potest.” (*I Sent.* 3, 3, 1c)

⁶⁷ *Ibid.*, *ad* 3. Cf. also Peifer: “The *species* is the measure of the degree of the knowledge of the object, for the *species* is the inner cause of the act of knowing.” (76)

cognition is the essence, not the causal *form* itself; the “best” image we can get from an extramental thing is a representation of its essence, not of its causal *form*.

For, in all cognition taking place through a likeness, the perfection of cognition is determined by the conformity which the likeness has with that thing whose likeness it is; and I mean a conformity in representation, such as a species in the soul has with the thing outside the soul even though it does not have a conformity with it in real existence. (*QDV* I 8, 1c.)

Representation means likeness, as when “presenting anew” an extramental thing to the mind by means of the *species intelligibilis*. Aquinas never states that there is a *communication* of a causal *form*, but only that “there is an agreement in *form*.” The *form* Aquinas speaks of here is the *form* considered as essence, which can be instantiated in the extramental thing and in a mind. Likeness of “*communication in form*” is epistemological, not ontological, because it is found in a different mode of being than the thing’s *form* considered as essence is presented in a mind.⁶⁸ Ontologically speaking, there is a difference among these three instantiations of a nature: an extramental thing’s causal *form*, an individual thing in itself (as a hylomorphic composite),⁶⁹ and in the *form* presented by the *species intelligibilis*.⁷⁰ All three share the same essence, but have different modes of being, and we cannot know an essence directly, only by abstraction.⁷¹

The perfection of our knowledge depends on the similarity that exists between the

⁶⁸ An “ontological” communication or natural likeness would imply another instantiation of the extramental thing in its natural state, an exact physical copy of it (or its causal *form*, at least).

⁶⁹ The composite’s quiddity, however, is different from the causal *form*, as well as from the “known” quiddity, due to the “new” combination with matter. See below, sec. 3.2.2.2, p. 174 and ff.

⁷⁰ According to Gracia (individuality 45-48), an individual is non-instantiable, whereas universals are instantiable *per se*. This also supports the view that the content of the *species* is the universal nature and not an individual extramental thing’s causal *form*. Cf. also Edwards 83: *Form* as essence or nature may be instantiated in three ways: as God’s Idea, as the extramental thing’s causal *form* and as a *species intelligibilis* (or any other mental *form*) in the mind.

⁷¹ “The human intellect, however, cannot grasp the universal truth itself unveiled; because its nature requires it to understand by turning to the phantasms.” (*ST* 1a 111, 1c) See below sec. 3.3.1.

intelligible structure of the thing (the essence or nature) and our own capacity of abstraction from matter:

[Concerning the relations between divine essence and our knowledge, and intelligible beings and the senses] ... the similarity (*similitudo*) and the dissimilarity (*distantia*) are double. On the one hand, one is with regard to nature: God's essence is far removed from created intellect than intelligible beings are from the senses. On the other hand, another is [with regard to] proportion: and thus this is converse, because the senses are not proportional to whatever is immaterially known. But the intellect is proportional to whatsoever is immaterially known. And this similarity is required for knowing, but not the former [with regard to nature]. This is evident because the intellect understands a stone not as a likeness of it regarding its natural being. Accordingly, sight apprehends the ruddiness from both honey and gall, yet not the sweetness of honey, because honey's ruddiness, insofar as it is visible, conform more to the gall's [ruddiness] than honey's sweetness to gall's [flavor].⁷²

In conclusion, the cognition of an extramental thing via the *species* involves a *formal* likeness or *communication*, but not a natural likeness, such as in an exact copy of the thing or its causal *form*. It implies *formal communication* as an image or likeness –a high quality image– of the thing (by the phantasm) and its essence (by the *species intelligibilis*).

Unfortunately, this is not the way in which most commentators understand Aquinas' use of *similitudo*. Kenny, for instance, believes that “the object and the thought resemble each other in that they are both informed by the same form.”⁷³ The supposition that likeness is produced by the same *form* also leads Kretzmann to believe

⁷² “...Quod duplex est similitudo et distantia. Una secundum convenientiam in natura; et sic magis distat Deus ab intellectu creato quam intelligibile creatum a sensu. Alia secundum proportionalitatem; et sic est e converso, quia sensus non est proportionatus ad cognoscendum aliquod immateriale; sed intellectus est proportionatus ad cognoscendum quodcumque immateriale; et haec similitudo requiritur ad cognitionem, non autem prima; quia constat quod intellectus intelligens lapidem non est similis ei in naturali esse; sicut etiam visus apprehendit mel rubeum, et fel rubeum, quamvis non apprehendat mel dulce; mellis enim rubedo magis convenit cum felle inquantum est visibile, quam dulcedo mellis cum felle.” (IV Sent. 49, 2, 1, ad 7)

⁷³ See above chap. I, p. 38. The use of *information* here implies natural likeness.

that the likeness establishes a causal relationship, rather than a representational one.⁷⁴ In the same way Peifer proposes a complete identity in likeness:⁷⁵

“If the form in knowledge is not really identical with the form in the thing, if it is merely a similitude, a likeness of the thing, then we do not know the thing but something like it. ...[In that case] the two things are by no means identical, they are merely like one another in some respect.” (72)

Putallaz proposes a more representational understanding of likeness, identifying the mind with the object of knowledge, instead of the extramental thing.⁷⁶ Lonergan⁷⁷ and Ryan,⁷⁸ as well, acknowledge that the similarity must be at the level of an intelligible structure, and not by natural likeness. Pasnau and Tweedale, however, who properly recognize a distinction between representational and natural likeness:

“The question is still open as to the respect in which species are *like* objects or even if they *are* always like objects. One might argue that Aquinas does not intent that we take *similitudo* literally in every case.” (Pasnau Theories 87)⁷⁹

“Aquinas denies natural likeness between *species* and extramental thing.” (Tweedale Representation 72)

Panaccio, as well, denies that there is any kind of natural *form* in the mind, either substantial or accidental. Likeness implies only the presence of an intentional mental

⁷⁴ See above chap. I, p. 33. Likewise, a causal relationship would imply *information*. For the difference between causation and spiritual alteration see chap. I, pp. 7-8.

⁷⁵ See above chap. I, p. 53, n. 88. “The same determination which exists in the thing exist in the formal concept of the object.”

⁷⁶ See above chap. II, p. 68: “Likeness is not thing nor representation which would be like aiming to itself: it is an effusion toward the other, because the intellected thing is the intellect’s form.”

⁷⁷ See above chap. II, p. 76, n. 40: “An immaterial similitude of the form that is received materially in the known thing.”

⁷⁸ See above chap. II, p. 80: “A likeness of the color, is something that is not physical or material, but the *ratio essendi* of the being perceived.”

⁷⁹ See also above chap II p. 101, n.89: “My conclusion is that, for Aquinas, mental representation is not entirely a matter of resemblance, and to the extent that resemblance is involved this has to be interpreted in a broad an open-ended manner.”

entity.⁸⁰ Still, Pasnau⁸¹ and King⁸² excessively stretch out the representational relation between the extramental thing's *form* and its likeness, the *species intelligibilis*, because of the use of modern representation: they can hardly see a "likeness" between represented and representation. These views have been criticized for insisting on searching a strict likeness between mental and extramental beings.⁸³ It has been shown that the likeness between these entities does not lie on their ontological features, but on the epistemological content: the essence or nature.⁸⁴

Accordingly, Tweedale maintains that the immaterial reception of the quiddity is what makes possible this likeness.⁸⁵ Likewise, Edwards points out that likeness –as Ryan, Lonergan and Putallaz admit– implies a "unity at the level of intelligible structures or natures as such." (Realism 90) She researches the types of similarities that can be posited among entities affirming that, for Aquinas, the extramental thing and the mental being are

⁸⁰ See above chap. II p. 105: "One must take care, though, that talking of the *sameness* of a form... naturally invites the question: which sort of form would be that the mind —or something in it— needs to share with the cognizing thing? Not an accidental form, obviously, like being of the same colour, since the mind normally does not take on the accidents of the cognized things: nothing is red in my mind when I think of red objects —or red redness. But not a substantial form either: you need not really take on the substantial form of a rabbit in order to know rabbitness. You need only take it on *intentionally*. Intentionally taking on the form of a rabbit, however, means nothing more, as we saw, than having in one's mind a similitude of the rabbit nature..."

⁸¹ See above chap. II p. 102: "If my interpretation is correct, Aquinas's sensible and intelligible species aren't iconic signs or eidetic likeness at all; it seems that they need share none of the qualities of the objects they represent. One might complain ... that a species *does* share at least one quality of the object it represents, namely, its form." And p. 103: "In as much as Aquinas thinks that all causal relationships involve agreement in form, and that likeness too always consists in some sort of formal agreement, he has a quick way of getting from a causal account of our cognitive processes to conclusions about the likeness between concept and object. But though the path may be direct, a serious obstacle stands in the way. For even if Aquinas can describe a causal chain running from the senses all the way to the intellect, he has to allow that what the senses apprehend are the superficial sensible qualities of things, not their essences or natures."

⁸² A mental image, King explains, does not need to look like the represented thing: features of a representation only need to systematically correspond to features of the represented object (by a series of transformation rules). See above chap. II p. 118.

⁸³ See above p. 103 for Pasnau and 119 for King.

⁸⁴ This point is thoroughly analyzed in sec. 3.3.2, p. 188.

⁸⁵ "The talk of similarity remained to some extent, but on account of the immateriality of the intellect this tends to give way to talk of the species representing the quiddity. In fact, it is hard to see at this point how being similar to the object could mean anything more than representing it." See above chap. II p. 113.

identical or similar with respect to the intelligible structure or nature.⁸⁶ We devote the next section and sec. 3.3.1 to explore this difference.

In conclusion, Aquinas is able to maintain an ontological realism without the need for a strict similarity –as in natural likeness. The *species intelligibilis*, as a representation of the extramental thing’s essence, implies only the epistemic “re-presentation” of the thing’s *form*, keeping the ontologically status of the representative *species* and the represented thing away from the contemporary dilemma of the similarity between them. In fact, this difference in mode of being supports to the view that the extramental thing’s causal *form* and the *species intelligibilis* are not the same thing, or that the latter is a copy of the former.

3.2.2 Is the Causal *Form* Different from the Essence?

One of the assumptions of the thesis we defend here is that the *species* is not a causal *form* (the *informing* principle of the composite), or a copy of it, or that it takes the causal *form* (and “carry” it to the mind). The *species* is the representation of the essence of an extramental thing, but not a representation of its causal *form*. Aquinas distinguishes the *form* of the part from the *form* of the whole, which is the quiddity or essence grasped by the mind.⁸⁷ Still, because what is finally received by the passive intellect is the absolute or pure *form*,⁸⁸ we need to be sure that this mental entity is not a causal *form*, or a mere copy of it, but that it actually differs from the individual extramental thing’s *form*.

⁸⁶Cf.: “Things which are numerically distinct can, we have been told [*ST* 1a 1 *ad* 2], be one and the same in *ratio*, i.e., in species or genus.” (Realism 94) “‘Likeness’ can signify ordinary resemblance, or unity in quality, or agreement in any sort of form (and in this last sense it is really a kind of identity).” (89) See below p. 188.

⁸⁷ See above chap I, p. 5, n. 7.

⁸⁸ See above Edwards, chap I, p. 6, n. 8, and Lonergan, chap II, p. 76, n. 39, and especially below the whole section 3.3.

In order to show that this view is accurate, we need to take a closer look at both the meaning and function of the causal *form*, and distinguish it from the individual thing's essence and the quiddity that is grasped by the mind. First, we turn to *form* and essence within the Aristotelian framework and then review the meaning of these terms for Aquinas.

3.2.2.1 Aristotle's Conception of *Form* and its Relation to Essence

The relation between *form* and essence is grounded on Aristotle's Platonic background. He identifies *form* considered as essence in order to answer the definition-question: "what is this?" For Plato there is no problem in this because essences and Ideas are interchangeable in that they are the same beings which exist in the intelligible realm. Material things are rough copies of these essences-Ideas. On the contrary, Aristotle does not believe in the existence of separated essences; he states that the primary beings are sensible beings, because they subsist in themselves: things are not mere copies of Ideas. Hence, the question "what is this?" turns out to be "what is this substance?" The search for essences is the search for the essences of substance. But sensible substances are not eternal and immutable like intelligible Ideas. They are hylomorphic composites, changing and mutable beings. Now, the *form* of a composite is supposed to be responsible for whatever the composite is (because matter is nothing in itself). Therefore, the *form* is naturally identified with the essence of the sensible substance. However, although the *form* or essence is the same in all the things comprehended within a "specific" group, the individual extramental things differ from one another: they are different instantiations of the same *form*, but they are different individuals as well. What makes the difference between two individuals of the same

species? Do they have an individual essence? Or do they only have an individual *form*? If so, could the *form* be, then, the common (specific) essence?

It is *a fortiori* ‘per impossibile’ to equate the essence of F with the form of an F-thing, because that form cannot be conceived as having a nature of itself, in independence of the matter of which the thing is composed, while the essence *is* surely so independent. How then can Aristotle identify form and essence as he so evidently sometimes does? What indeed is he identifying with what? (Hamlyn, Aristotle 57)

Plato holds onto separate essences and dismisses this problem; but Aristotle denies the existence of Ideas, so the essence must be *in* individual substances. For this reason, he needs an “essential” distinction for individual things in order to give an ontological account of the sensible world. The essence of the individual thing should correspond to whatever gives identity to the composite; and each one has a *form* which is responsible for its own individual essence. Yet, the problem now is how to grasp a common essence among sensible and mutable things. Contemporary scholars point to the identification essence with *form* as the source of the problem for Aristotle. Sensible substances are hylomorphic composites with individual essences and *forms*, but the answer for the question “what is this (substance)?” needs to refer to an intelligible being, a common essence or *form*. What is the problem when essence is identified with *form*?

Here are their views:

The definition of primary essence does not include any element from another category. In contrast, when defining an accidental composite, we have to include both substance and nonsubstance category. Its definition must be one thing in another. Thus essence really is what substance is and is explanatory basic. Similarly, to say that the form’s formula does not involve matter means that form is explanatory basic to the other two dimensions of substance and, hence, is primary. (Yu 310)

...The word ‘*eidos*’, which meant ‘species’ in the logical works, has acquired a new meaning in a hylomorphic context, where it means ‘form’ (contrasted with ‘matter’) rather than ‘species’ (contrasted with ‘genus’)...

The *eidos* that is a primary substance in Book Z is not the species that an individual substance belongs to but the form that is predicated of the matter of which is composed. (Cohen M. § 7)

A particular form may be called “separable in formula,” in the stretched sense that the definition of the universal form that it instantiates does not mention any particular substance. But the phrase applies more naturally to the universal. (Albritton 702)

These authors view *form* as the common essence of a specific group. Indeed, they agree that the Aristotelian identification of *form* and essence is generated for a need of definition, which later is used in our scientific quest for interpreting the world:⁸⁹ true knowledge is knowledge of universal essences. Individual things include both matter and *form*, and matter is thought to be the cause of accidental traits, which are indefinable by nature:⁹⁰ thus, hylomorphic composites cannot be defined.⁹¹ This position leads scholars to understand Aristotle as denying the category of substance to composites; substance, properly speaking, is the common *form*.⁹² The only way in which an essence can be identified with *form* is by ignoring either the material side of the composite or (if preferred) the complex constitution of the hylomorphic sensible being.⁹³ In this manner,

⁸⁹ “The primacy of form over the composite is established on the ground that its definition does not involve matter. Clearly, in his argument about how form is prior to the composite in terms of definition, Aristotle imitates the analysis in Z4-6 that distinguishes essence from the accidental composite through definition.” (Yu 309-10). “If the substances of particulars are particular, there is a danger of having to conclude that no knowledge of them is possible, since knowledge is of the universal. There would then be no knowledge of what things really are, for a thing *is*, really, its substances (cf. 1031a17-18).” (Albritton 707-8).

⁹⁰ One may define the “essence” of an accident (the color red), but there is no account for the composite’s accidents.

⁹¹ “The hylomorphic composite is not a definable unity and not conceptually primary because it must be explained through other things, namely, form, and matter.” (Yu 309).

⁹² “...No substance of a particular is the substance of any other. But the substance of a particular is the form or essence in some sense. A particular, therefore (if it is a substance), must have not only the universal form of its species, but a form in some other sense, *its* substance. And what will this be, if not a particular, answering in the particular substance to the universal form of that species of substances?” (Albritton 705). “My view is that a particular thing must be a composite of form, matter, and accidents, but the particular substance as a substance cannot include accidents in itself. It might be “thought of” as a substance, but this is not correct, as Z4-6 shows.” (Yu 307).

⁹³ “If some definitions include a reference to matter, then the link between essence and form would seem to be weakened.” (Cohen M. § 9)

hylomorphic composites are excluded from our logical conception of the world. Despite the fact that Aristotle does not deny that an individual composite has an individual *form*, Aristotle identifies their essence with the common essence or *form*:

If we take ‘Socrates’ as an accidental composite, his real substance is his essence. If we take ‘Socrates’ as a hylomorphic composite, his primary substance is form. No matter what kind of composite ‘Socrates’ is taken to be, the form of ‘Socrates’ is his (rational) soul, and so his essence. Thus, as a primary substance, form and essence are identical. (Yu 308)

It is clear from Z 15 that Aristotle thought it impossible to “define you” (1040a12) or any particular. But what emerges from these passages in which he nevertheless refers to essences of particulars things is not yet a doctrine of particular forms. It is a suggestion that if we ask about a particular what its essence is, as distinguished from that of its species, we must answer, uninformatively, that *it* is its essence: *itself* is all that can be “said to be in virtue of itself” [cf. 1029b14] (Albritton 703)

“Some things,” he continues, “surely are a particular form in a particular matter” (1036b23), so that it is not possible to define them without reference to material parts (1036b28). Nevertheless, Aristotle ends Z.11 as if he has defended the claim that definition is of the form alone. Perhaps his point is that whenever it is essential to a substance that it be made of a certain kind of matter (e.g., that man be made of flesh and bones...) this is in some sense a structural requirement. (Cohen M. § 9)

Aristotle neglects the individual essences of composites as part of his strategy for matching substantial *form* and essence, and secures our realist knowledge of the world.

The recognition of the existence of individual essences is nonetheless embarrassing:

Aristotle cannot deny the concreteness of a sensible composite, but tried to diminish its essence.⁹⁴ As a result, there is no Aristotelian theory or account of individual essences.⁹⁵

⁹⁴ “*Man* is a species, and so there is an essence of a man; but *pale man* is not a species and so, even if there is such a thing of an essence of pale man, it is not at any rate, a primary essence.” (Cohen M. § 7) The same goes for Socrates: he does not have primary essence other than the *form* man.

⁹⁵ “...As far as I can find, there is no mention of particular forms other than souls in any book of the *Metaphysics* but *A* or in any other work of Aristotle.” (Albritton 704; cf. also 707)

However, one thing is clear and very important for our investigation: that individual essences exist and their ontological status, if overlooked, cannot be denied.

If then Aristotle does not hold, or does not clearly hold, that Socrates and *man* are the same, that may be because he is not operating solely on the level of predicates; he is concerned with the *things* to which those terms apply and which gave them their meaning. In the normal case there is no identity between the thing and its *εἶδος*, and for that matter an *εἶδος* may still function as a model, essence and *λόγος*—all together. (Hamlyn, Aristotle 57-8)

Individual essences (which are acknowledged in the ontological realm) are distinguished from the universal essences that correspond to the intelligible *form* or common essence. These universal essences are conceived as the way we can think about substances, not as the way substances are: *forms*, in this sense, are what all beings have in common.⁹⁶ Alternatively, *forms*, as *formal* causes of individual composites, are not substances in themselves, despite the fact that Aristotle explicitly identified *forms* with essences:⁹⁷ *form*, as part of a composite, is related to the common essence, the definition and the substance, not to the causal *form* of individual things. In the same way in which ‘substance’ is regarded as the ‘substance of’ the composite, *form* must be thought as the ‘*form* of’ an individual thing.⁹⁸ Indeed, what is known as the Aristotelian ‘*formal* cause,’ is not described with the adjective ‘*formal*’ (*εἰδητικός* or *εἰδικός*); he only says that

⁹⁶ “One might distinguish, as Aristotle does, ways of being “one” and argue that things whose substance is one need not be one in every way, but only to that of their substance. Men are many in number. It follows that nothing one in substance can be their substance. It is only one in form (*Cat.* 3b10-18, *Met.* 999b 24-1000a4, 1086b14-32: cf. 1003a10, 13, 1052a15-b1, b15-17). And men are one in form. The one form of men *may*, therefore, be their substance.” (Albritton 706)

⁹⁷ “The sense, therefore, in which the form of the shoe is present in the shoe, and is an *incomplete* entity incapable of separate existence, is not to be simply identified with the sense in which qualia, quanta, etc. are present in primary substance...” (Sellars 698)

⁹⁸ “Since form must be the form of a form/matter composite, and similarly, since essence is the “substance” of an accidental composite, strictly speaking, form or essence is the ‘substance of’ rather than just the ‘substance.’” (Yu 306)

form (as a noun) is the second type of the four causes.⁹⁹ Thus, instead of talking about ‘*formal* cause,’ he prefers the expression the ‘cause of,’ because there is only one *form*, the substantial *form* or essence.¹⁰⁰ Now, because Aristotle denies the existence of Ideas, *forms* are not substance in themselves either. Substances are the concrete sensible individual composites. *Forms* are principles of beings (of sensible substances), and as such they only exist properly in substances.¹⁰¹ Consequently, if substantial *forms* are identified with essences, causal *forms* cannot be the essences of individual things.¹⁰²

In conclusion, Aristotle acknowledges individual essences that differ from universal essences. In order to grasp the world, Aristotle identified *form* with essence, despite the fact that (a) *form* is a principle of being, the *formal* cause of it, and (b) *form* alone cannot stand for the essence of a sensible composite.¹⁰³ Thus, the hylomorphic nature of composites creates a problem for Aristotle because universal essences-*forms* cannot account for the *forms* of individual things.¹⁰⁴ The most likely scenario is that

⁹⁹ “We call a cause (1) that from which (as immanent material) a thing comes into being, e.g. the bronze of the statue and the silver of the saucer, and the classes which include these. (2) The form or pattern, i.e. the formula of the essence, and the classes which include this (e.g. the ratio 2:1 and number in general are causes of the octave) and the parts of the formula.” (Metaphysics V 2, 1013a24-1013b3) “In another way, the form or the archetype, i.e. the definition of the essence, and its genera, are called causes (e.g. of the octave the relation of 2:1, and generally number), and the parts in the definition.” (Physics II 3, 194b27-194b29)

¹⁰⁰ Indeed, Falcon reads in the previous quotations *formal* cause as “the account of what-it-is-to-be”, e.g., the shape of a statue. (§ 2)

¹⁰¹ “Form is something that something has and has no being except on that condition. Hence, in its occurrence it is always dependent on that particular thing.” (Hamlyn, Aristotle 63)

¹⁰² The only pure *form* that exists as substance (and essence) is God. Non-sensible individuals may have a *form* as essence —like angels— but Aristotle did not have entities like that in his ontology.

¹⁰³ “It is with certain kind of flesh and bone that the form of a man unites. But, further, if two portions of flesh and bones with which the form unites are identical, they are no more capable of producing two distinguishable men than if they had been portions of prime matter. They must differ in character, i.e., in form. Socrates and Callias, while agreeing in their specific form, must differ in the form of their matter. By following this line of thought we should arrive at the notion of an essence of the individual, which includes besides the specific form such further permanent characteristics as spring from differences in the manner of which different individuals are made.” Ross, D.170

¹⁰⁴ “If we can say that matter is potential form or a potential compound involving form, we might say analogously that form is simply actualized matter and must always be thought of in such a context.” (Hamlyn, Aristotle 65)

Aristotle needed an intelligible element within sensible composites in order to grasp the world.¹⁰⁵ In this sense, the *form*-essence identification was a necessary but reductive theoretical effort for explaining extramental reality. This move takes a different beat in the Middle Ages, as we are going to see in the Aquinas' account.

3.2.2.2 Form and Essence in Aquinas

Some medieval authors only reiterated the problematic identification between individual essences and common- universal essences. Quiddity was identified with the common *form*.¹⁰⁶ But in general, scholastics acknowledged the essence of an individual composite. This, in turn, leads to a new understanding of *form*:

The notion of a substantial form has its roots in Aristotle's physical conception of form as one of the four causes, along with his metaphysical conclusion that form, above else, is substance in the primary sense. But these conception of form as somehow *substantial* took on new life among scholastic Aristotelians, and was developed in a way that Aristotle himself never suggested. Indeed, I will argue that scholastic philosophers transformed the notion of what a form is, replacing what was for Aristotle a mode of functional explanation with something much more like an internal efficient cause. (Pasnau, Form 31-32)

Due to the great authority attributed to Aristotle, the traditional identification between *form* and substance was not discarded, only modified. Nevertheless, the essence of an individual composite played a more important role in the description of reality. Likewise, a parallel sense of *form* was developed that differed from the universal understanding usually acknowledged by Aristotle: "...The doctrine of substantial form is two-sided, at times appearing concrete and causal... and at other times abstract and

¹⁰⁵ "...Although form is in fact limited by matter and although the possibilities of explanation by reference to form are similarly limited, there is an implicit reference to what is essentially so, unlimited by the conditions that matter imposes. Form is thus not, strictly speaking, identical with essence, but implies nevertheless a reference to what is essentially so." (Hamlyn, Aristotle 64)

¹⁰⁶ "[For Averroes] The quiddity of man is the form of man and his very being (*esse*). It is not the man composed of matter and form." (Maurer 166)

metaphysical...” (Pasnau, Form 32) Causal *form* becomes an individual intelligible principle, coexisting along with a universal *form* or –rephrasing Yu– “the form of.” Despite the fact that Aristotle does not offer a conception of the essence of an individual, it was he, in natural philosophy, who provided the means for establishing a new conception of this individual causal *form*.¹⁰⁷ His hylomorphic doctrine and the individuating role of matter, which accounts for accidents as well as individual traits, made it possible.

Aquinas keeps the old *form*/substance identity, but regards the substantial *form* insofar as the source of an intelligible description of the sensible composite: the definition. On the other hand, an individual composite is ontologically understood as having a causal *form*.¹⁰⁸ Nevertheless, a causal *form* is not regarded as the essence of the individual thing.¹⁰⁹ These two *forms* certainly play a causal role, but in a different mode: the extramental thing’s *form* considered as essence (giving intelligible structure to the thing) and the causal *form* (as an ontological principle of being). Preston, in his study of Thomistic causality, has clearly differentiated these *forms* into intrinsic *formal* cause and extrinsic *formal* cause (also called “exemplar”):

1) The intrinsic formal cause: this cause is the complement of the material cause. The latter [extrinsic] is that out of which something is made, and

¹⁰⁷ “For Aristotle, then, there is a sense in which a composite substance has a definition including matter and form, and it is precisely the sort of definition that the natural philosopher formulates. What is significant from our point of view, however, is that such a definition is not one of the very essence of the thing. The essence is the form alone.” (Maurer 168)

¹⁰⁸ “As long as essence is regarded from the standpoint of intelligibility, as what a thing is necessarily and immutably, it will tend to be focused in the form to the exclusion of matter, for matter is in itself unknowable and the root of change. On the other hand, as soon as it is regarded “existentially,” in relation to the existence, matter will be seen as not foreign to essence, for what the thing is, is not form, but a composite of form and matter.” (Maurer 175)

¹⁰⁹ “By definition, ...the form makes something actually to be a thing of a certain kind. Hence, it would seem that the essence of a material substance is its form. Yet Aquinas denies it too, arguing instead that the essence includes both form and matter. So the essence of human being makes reference both to soul and to body.” (Pasnau and Shields 55)

the former is that which determines a being to be what it is... whether accidental or substantial, [this] form confers actuality on being. It is an intrinsic cause which enters into the composition of material essence by making prime matter a determined recipient of existence.

2) The exemplar cause: In this regard the form is considered as a model. As such it ensures that the effect may receive a determinate form by reason of the exemplar which the agent has before him. This exemplar may be some object external to the agent, or some idea in his mind. It is said to be a cause because it is the pattern after which the effect is to be produced; it is the external form which determines what the internal form is to be. *It is the formal cause that holds the central place in St. Thomas' theory of knowledge.* It is the function of the form to actualize a potency, and since the knowing powers are themselves potencies, it is being which must stand as the actualizing form. Thus being becomes an intrinsic constituent of knowledge and makes possible the identification of the knower and the known. (5-6) [*our stress*]

The exemplar cause is the extramental thing's *form* in an extramental reality because it corresponds to God's creative Ideas: "it is from His intellect that forms flow into creatures. Our knowledge is the impressing of things in our souls; but the forms of things are the impressing of the divine knowledge in things." (*QDVI 2, 1 ad 6*) However, natures in themselves are neutral with respect to existence when they are conceived as intelligible structures; they only exist as instantiated by God in creatures.¹¹⁰ Hence, God causes things to be whatever they are, giving existence to natures.

In regards to the twofold conception of causal and universal-exemplar *forms*, Aquinas reinterprets the category of substance. According to Wippel, Aquinas reduces the four Aristotelian modes of substance into two:¹¹¹ on the one hand, we have the individual composite; on the other hand, we have *form* considered as essence or quiddity.

¹¹⁰ "Aquinas clearly distinguishes the two –the nature as such is secondary, the nature as existing in the divine intellect is primary... in contrast with divine ideas, he calls them created natures. Yet created existence in individual things or intellects." (Edwards Realism 84) See below, p. 188.

¹¹¹ "In *Lectio* 10 of his Commentary on this same Bk. V (ch. 8) of the *Metaphysics*, Thomas there finds Aristotle singling out four modes or kinds of substance. First of all there are individual substances such as simple bodies and even mixed bodies when they are composed of similar parts as in the case of stones and

Substance in the first sense, i.e., the ultimate subject or first substance, continues to be regarded as substance in the primary sense and is referred to as a *hoc aliquid* (“this particular something”) which subsists in itself and is separate; for it is distinct from all else and is not communicable to others. (5)

In order to complete his reduction of Aristotle’s classes of substances to two, Thomas now combines substance taken as form (i.e., as substantial form) with substance taken as quiddity. Both substantial form and quiddity may be regarded as principles by means of which something is. But when we speak of (substantial) form, writes Thomas, we view it as a principle which is directly ordered to its appropriate matter. When we speak of quiddity, we rather have in mind the quiddity as ordered to its subject or *suppositum*, that is to say, to that which is signified as having the quiddity or essence. (6)

Primary substance is the hylomorphic composite and takes into account not only properties derived from *form* but also the specific traits of material composition.¹¹² This is the origin of the Thomistic distinction between “*form* of the part” and “*form* of the whole” in *Being and Essence*:

The form of the part is the form that unites to matter and, therefore, does not include matter. For this reason it is to be considered a kind of incomplete or partial form, as it were. The form of the whole by contrast is the complete form and thus includes matter in its definition. (Gracia, Cutting 30-31)

living things and their parts. These are said to be substances because other things are predicated of them. Thomas identifies these as the first substances mentioned by Aristotle in the Categories. As a second mode or kind of substance Thomas lists the intrinsic formal cause (*causa essendi*) of a first substance, i.e., its substantial form. As a third mode of substance he mentions the parts of substances which set limits to them in some way, i.e., lines, points and numbers. (These are regarded as substances by some.) Finally, as the fourth mode or kind of substance he names the quiddity of a thing which its definition signifies.

Concerning this fourth mode, Thomas notes that it is according to this mode - substance taken as quiddity - that genus and species are said to be the “substance” of that of which they are predicated.” (Wippel 5)

¹¹² “Hence St. Thomas concludes that the essence of natural substances cannot be form alone but the composite of form and matter.” (Maurer 173) “The common nature is signified by the definition which indicates what the thing is. Because of this, the common nature is also known as essence or quiddity. But certain items are found in an individual substance which are not included in the common nature, i.e., individual matter and the individual accidents which determine such matter.” (Wippel 7)

Despite the fact that Aristotle regarded *form* more as what is essential rather than as the essence of the individual thing,¹¹³ Aquinas tries to redefine the blurred and inconclusive path of an Aristotelian theory of individual substances.¹¹⁴ There is, of course, a limitation to our knowledge, imposed by the materiality of a thing.¹¹⁵ Nonetheless, Aquinas distinguishes an essence or quiddity of the individual composite, which includes abstracted “common” matter, from the unknowable individual essence:

When Aristotle asserts that the composite whole is composed of form (*εἶδος*, species) and matter, St. Thomas interprets this matter to be individual matter. To say that the composite is constituted *ex specie et materia* means for him that the nature of the species is in this determinate matter. (Maurer 170)

Likewise, he distinguishes the knowable quiddity from the “pure” essence or *form*, expressed by the universal.¹¹⁶ These distinctions, which cannot be found in Aristotle, create several levels of analysis from epistemological and ontological points of view.¹¹⁷ According to Aristotle, the *form* that is known by abstraction corresponds to the essence of the substance; thus, he keeps the causal *form*, which is the cause of the composite, and the essential *form*, which is the knowable quiddity of the thing as well, as a one single entity, the substantial essence-*form*. Conversely, Aquinas’ distinction between *form* as causal principle, quiddity and “pure” *form* as nature allows an

¹¹³ See p. 165, n. 105.

¹¹⁴ “...It cannot be right to identify the substantial form with a thing’s essence, because there was general agreement among the scholastics that the essence of a thing includes both its substantial form and its common matter... Aristotle might be thought to reflect this point, inasmuch as he describes the form not as the essence, but as the account (logos, ratio) of the essence.” (Pasnau, Form 34)

¹¹⁵ See Rousselot above, chap. II p.90, n. 59.

¹¹⁶ Again, see Edwards, chap I, p. 6, n. 8, and Lonergan, chap II, p. 76, n. 39, and especially below the whole section 3.3.

¹¹⁷ “La distinction des « formes » comme *anima* et des « formes » comme *humanitas*, si indécise chez Aristote, est au contraire un trait caractéristique de la métaphysique thomiste. Voir in 5 Met. 1.8 (542) ; in 7 Met. 1.9. 1 q. 75 a. 4 ; Pot. 9, 1, etc.” (Rousselot 92, n. 3)

ontological distinction between *formal* cause (“soul” as cause of the human), “man” (“human” as quiddity of the thing) and “humanity” as the nature of “human.”¹¹⁸

The important point for our investigation at the moment is the distinction between an individual *form*, which cannot be grasped because it is the causal *form* of a thing, and the graspable *form* of the composite, which corresponds to the quiddity or essence.¹¹⁹ The former is the indefinable individual essence that troubles Aristotle.¹²⁰ As a matter of fact, Pasnau claims that Aquinas speaks about individual *forms* for primary substances.

...Aquinas thinks that individuals within a species are distinguished by their forms. This means that, even within a species, the forms of things differ—not just numerically but also qualitatively ... accordingly, we have to qualify the claim that form is part of the essence of a composite substance. Just as only common matter enters into the essence, so too the common features of form can be said to do so. To arrive at that which all members of species have in common, we have to abstract away not just the individuating aspects of matter but also the individuating aspect of form.¹²¹

Edwards explains that these individual *forms* are due to the necessary “transformation” which a specific *form* or instantiation of a nature undergoes when it unites with its *signate* matter. A specific *form* is individualized when it is united with matter: “Because of its reception in designated matter a form, substantial or accidental, is the form of this individual and no other.” (Aquinas 157) However, the individuality of the

¹¹⁸ See below sec. 3.3.1, p. 174, for these results on abstraction.

¹¹⁹ “St. Thomas adds that form alone is in its own way the cause of the *esse* of the composite, but this does not entitle it to the name of essence. [n. 66: Both form and essence are in their own way principles of *esse*. They are principles *quo est*. Only the form, however, is the cause of the *esse*, for it gives *esse* to matter as a formal cause.]” (Maurer 174)

¹²⁰ See above Albritton, p. 163.

¹²¹ Pasnau and Shields 59. Also: “It may be surprising to find Aquinas committed to differences between substantial forms within a single species. But this is something he is quite clear about ... Aquinas [says] that not all differences in form do make a difference in species (ST 1a85.7 *ad* 3). Given this view, it follows naturally that knowledge of a thing’s individual substantial form would yield knowledge of all its intrinsic accidents [QDV 2.7c]... But the metaphysical point remains: all of a substance’s properties, necessary and contingent, either flow from its substantial form or are imposed from without [De Ente 4.127-30].” (Pasnau, Form 36-37)

form is not restricted to belonging to a concrete composite; as Aquinas usually insisted, the way in which a *form* is received depends on the manner of the recipient.¹²² Therefore,

a general sort of mixtures is found in all the members of a species, but actual mixtures in the individuals will differ... A substantial form will impose its own general structure... but the composition of the matter that receives it will determine the details of actual size, maturity, actual color, etc.” (157-8)

Edwards also noticed that Aquinas not only talks about *forms*, but also about specifics and individual “natures.” (158) In any case, she thinks that Aquinas conceived that individuals *qua* individuals have essences. (161) Elsewhere, she makes a distinction between the extramental thing’s causal *form* (*forma partis*) and the extramental thing’s quiddity (*forma totius*) not by the common or unassigned matter that enters in the composition of the latter, but mainly by the essential distinction between these *forms*: the *form* of the thing’s quiddity, due to the mixture with designed matter, differs from the extramental thing’s causal *form*.¹²³ Accordingly, Aquinas states that individual causal *forms* cannot be known:

The being of a thing must needs [sic] depend on that from which it has its individuality: for just as common principles belong to the essence of the species, so individualizing principles belong to the essence of this particular individual. (SCG II 75)

Our intellect abstracts the intelligible species from the individualizing principles; hence the intelligible species in our intellect cannot be the likeness of the individual principles; and on that account our intellect does not know the singular. But the intelligible species in the divine intellect, which is the essence of God, is immaterial not by abstraction, but of itself, being the principle of all the principles which enter into the composition of things, whether principles of the species or principles of the individual;

¹²² Cf. for instance *ST* 1a 84, 1c.

¹²³ “A nature taken in this way is called the form of the whole, being more than the substantial form although still only a part of the individual. It is that whereby Socrates, for example, is a man, but it omits other aspects of Socrates the individual, e.g. his accidents, existence, designated matter.” (Edwards *Realism* 80)

hence by it God knows not only universal, but also singular things. (*ST* 1a 14, 11 *ad* 1)

Elders, likewise, claims that the essence of an individual, merged with its respective *signate* matter, constitutes a new individual composite which requires an unknowable individual substantial *form* that cannot be compared with the nature itself, the “specific” *form* or essence:

The substantial form must constitute the individual: the individual is a particular realization of the specific essence. (142)

Prime matter... is the material cause of individuation: it demands, so to say, a separate individual substance. The new substantial form, which determines the prime matter, is the answer to this “demand” and gives the substantial actualization, so that a new individual is constituted... However, the precise formal contents of individuality are not accessible to our knowledge. (143)

The existence of an individual essence and an individual *form* that lie beyond our knowledge cannot simply be identified with the causal *form*, which is the principle of the composites’ being. We are talking here of two unknowable *forms*: one is the causal principle, the other the individual essence of a hylomorphic composite. On the other side of the equation, from the point of view of knowledge, we have “substance” taken as *form* and quiddity. But, again, here *form* is regarded as the definition, not as the causal principle of primary substance, or as the result of a hylomorphic composite.¹²⁴

In any case, the knowable quiddity includes “matter” in an abstract and universal way.¹²⁵ *Form* alone, Aquinas has insisted, is not the essence of the thing even in the

¹²⁴ This two unknowable *form* are explained in the next section, 3.3.1.

¹²⁵ “But when we speak of substantial form, write Thomas [In Met. Lect 10, n.903], we view it as a principle which is directly ordered to its appropriate matter. When we speak of quiddity, we rather have in mind the quiddity as ordered to its subject or suppositum, that is to say, which is signified as having the quiddity or essence... We should not conclude from this, however, that for Thomas the quiddity of a material being is reducible to and identical with its substantial form. Substantial form is rather included

definition of the species, but is only a part of the definition.¹²⁶ From this point of view, when Aristotle identifies substantial *form* with essence, he is not thinking of *form* as the causal principle that unifies the composite and makes it a sensible substance. Aristotle cannot accept anything like *forma totius*:¹²⁷ it would not lead to a scientific perception of the world.¹²⁸

In conclusion, Aristotle acknowledges that there is an indefinable individual essence, and that the *form* is the cause of the composite, and Aquinas follows Aristotle on this point; but he distinguishes between the *form* considered as essence of the thing and the causal *form* responsible for the *information* of the composite.¹²⁹ According to Aquinas, a causal *form* is an internal efficient cause.¹³⁰ If *form* is conceived in this way, its role in definition turns out to be –contrary to Aristotle’s view– only partially and not totally explanatory:

According to Metaphysics Zeta 17, the unity of a substance is a product not just of its elements, but of some further unifying principle, the form, that is not itself an element... formal explanation seems to take place at a more abstract, metaphysical level. What is at issue here are not ground-level facts why a body has this or that observable quality, but more refined questions of unity and individuation, requiring judgments about, for instance, a thing’s modal properties. (Pasnau, Form 40)

within the quiddity or essence, along with prime matter, Thomas would maintain, even though this does not appear to have been Aristotle’s position.” (Wippel 6)

¹²⁶ “According to St. Thomas’ interpretation the quiddity or species of a material thing does include universal matter, but not individual matter.” (Maurer 172) “...Species includes matter, at least universal matter, and it is distinguished from form alone.” (170)

¹²⁷ Cf. note 91.

¹²⁸ I repeat this Aristotelian view: “...Essence really is what substance is and is explanatory basic. Similarly, to say that the form’s formula does not involve matter means that form is explanatory basic to the other two dimensions of substance and, hence, is primary.” (Yu 310)

¹²⁹ “...It is in this way –as part to whole– that humanity (standing for essence) is related to Socrates (an individual subject). Therefore in matter-form composites we cannot say that an essence is completely identical with its subject.” (Wippel 7)

¹³⁰ “As we will see, the substantial form can be viewed as playing something very much like the role of an internal efficient cause, sustaining and regulating the existence of that which the efficient cause originally produced.” (Pasnau, Form 35)

For Aquinas, alternatively, *form* explains only part of the functions of the individual (as it is only part of the composite's essence), and –Pasnau explains– this functional activity is the higher point from a metaphysical perspective that Aquinas assigns to *form*.¹³¹ *Form* is the cause of the individual, a principle of being. In order to re-identify substantial *form* with essence, as Aristotle does, Aquinas has to make *intensional* distinctions among the terms of “essential” terminology: quiddity, essence, *form*, and nature.¹³² One meaning of *form* refers to the determination of the composite, the causal principle or *forma partis*, whereas the other is viewed with regard to “what it is” (quiddity), which is the so-called *forma totius*.¹³³ This is why the causal *form* cannot be known as such, because it is an individual principle united to matter in the composite, whereas the *form* considered as essence is expressly suitable to being known.

What is known is a *form*, but this *form* –which is conveyed by the *species intelligibilis*– differs from the thing's own principle.¹³⁴ *Species* conveys the essence of the thing, what is called *forma totius*, but not the causal *form* or *forma partis*,

¹³¹ “Aquinas shows less indication to conceive of form in this highly abstract way. Though he wants to arrive at the same metaphysical conclusions regarding the unity and endurance of substances, he arrives there by conceiving of form as a concrete internal power that give rise to a thing's functions. (43-44) “Aquinas is especially interested in this regard, for although he does —as we have seen— stress the concrete side of substantial form, he also puts substantial form to metaphysical work, using it to articulate the identity conditions for a substance and its various parts.” (41). “It individuates the whole substance and its parts, so that when a part is separated from the whole, the part becomes something else, distinct not just in number but even in kind.” (Pasnau, Form 42)

¹³² “Using the terminology introduced earlier, we could say that these terms have the same denotation but their connotations differ: “Essence,” “quiddity,” “form,” and “nature” denote the same thing, but “quiddity” connotes it as a what (*quid*) makes a thing to be what it is, “form” connotes it as what determines it to be so, “nature” connotes it in terms of its direction to a specific operation, and “essence” connotes it as that through which a thing has being (*esse*).” (Gracia, Classics 139)

¹³³ “A nature taken abstractly is signified by a term like ‘humanity’ and consists of both substantial form and common or undesignated matter, e.g. flesh and bones which are common to the whole species of men, though it prescinds from designated matter, e.g. *these* flesh and *these* bones by which the individual is distinguished from all others. A nature taken in this way is called the form of the whole...” (Edwards Realism 80)

¹³⁴ “For the intelligible species is the formal principle of the intellectual operation; even as the form of every agent is the principle of that agent's proper operation.” (SCG I 46)

materialized part of the composite: a *species intelligibilis* is only the likeness of the essence.¹³⁵ The essences of things, then, are epistemologically and ontologically different from causal *forms*, and there is no other way to know our own quiddity than “to abstract” it via the *species intelligibilis*.¹³⁶ It is worth noting that, from an epistemological point of view, the extramental things’ *forms* do not “cause” our cognitive *species* to exist—as happens in *formal* causation— or affect the soul in any way, though our physical composite’s sensorial powers certainly receive them.¹³⁷ However, they allow our soul to create a *species* according to an extramental thing’s exemplar *form* or nature. This exemplar *forms* allow us to know a thing’s quiddity: the exemplar is the source of our knowledge.

We conclude this section by stressing the difference between the Aristotelian and the Thomistic view of causal *form*. Aquinas regards it not only as the essential principle of an individual thing, but also, and most importantly, as the intelligible part of the composite which is causally responsible for the determination of the concrete individual. Likewise, it should be clear that Aquinas not only distinguishes the quiddity of an individual substance from the causal *form*, but also that he gives a more important role to the material components of the sensible substance. Matter (in an abstracted way, as a common matter) and *form* are taken as components of the essence of an individual in its specific concretion and, in this manner, as parts of the definition of the substance’s

¹³⁵ “But a distinction must be drawn: since the essences of some things are immaterial—as the separate substances called angels, each of which is understood and understands, whereas there are other things whose essences are not wholly immaterial, but only the abstract likenesses thereof.” (*ST* 1a 87 1 *ad* 3)

¹³⁶ Thus, Aquinas distinguish the “soul” as *formal* cause from the received extramental human being’s *form* considered as essence or quiddity: “Accordingly our intellect does not know itself except by the species whereby it is made actual in intelligible being; for which reason Aristotle (3 *De Anima* iv. 12, 430a3-430a9) says that *it is knowable in the same way as other things*, namely by species derived from phantasms, as by their proper forms.” (*SCG* II 98) The emphasis is ours. See also above Putallaz, chap. II, p. 65 and ff.

¹³⁷ See chap II p. 116, n. 118, and below n. 147.

quiddity. A thing's quiddity is in turn abstracted and conceived as common essence, a knowledgeable principle which necessarily differs from the individual extramental thing's quiddity. This is the *form* that can be received by the mind, conveyed by *species* and phantasm. From this general *form* or quiddity of an extramental thing, another *form* or essence is grasped, as pure or absolute, without any abstracted matter, and this is expressed by a universal concept.

3.3 Abstraction and Cognition of Essence

Thus far, we have found there is an important difference between *form* as a causal principle and *form* considered as essence or nature; while both types of *forms* are causes in principle, we noted that the causal *form* is a being which exists in a composite, whereas the *form* considered as essence is only an intelligible principle, and as such it serves as an exemplar for the causal *form*. Now are interested in examining how the extramental thing's *form* considered as essence is abstracted from the hylomorphic composites, and establishing the sense in which we grasp *it*. Next, we present an analysis of the *species* from the point of view of its content. Finally, we offer a solution to the problem put forward at the beginning of this study, concerned with what is known in cognition. The solution is that the *species intelligibilis* presents a likeness of the extramental thing's essence as an intelligible structure or nature.

3.3.1 Abstraction from Material Composites

Aquinas' theory of abstraction has been extremely discussed.¹³⁸ It is generally accepted that there are three types of abstraction designed for particular purposes: (1) one from individual sensible matter; (2) from common sensible matter, whose result remains with an intelligible matter that takes part in the definition; and (3) from all matter, which leads to a definition of the *form* alone. (Connolly 73) These three levels correspond to three types of sciences, i.e., physical, mathematical and metaphysical, respectively. These acts of abstractions are not a “deformation” of the nature of a thing, but rather represent it actually from different aspects:

The intellect forms universal concepts which are abstracted from the individual natures of things and purport to grasp their essence or quiddity. Existing material things are always individual. Since the intellect knows universal essences, a certain modification of the object *qua* known by the senses takes place, sc., a generalisation. This is not falsifying the evidence, but a process which sees in individual things that which they have in common with other individuals of the same species, while it omits the individual characteristics. However, it does not abstract from the so-called *materia communis* which is contained in the essence of material things. (Elders 232)

Science involves an investigation of real being through a discursive movement of the intellect in which this investigation is realized. But the material things in the physical world, as they exist in strict extramental existence, are neither fit objects for scientific investigations nor are they fit principles for logical discussion. They are not scientific objects because they exist in a concretely material state, whereas intelligibility is proportioned to immateriality. (Simmons Defense 437-8)

¹³⁸ There is a great controversy due to the loose terminology used by Aquinas on the subject: cf. Simmons Thomistic, Connolly, Cunningham, Lonergan 188-190, Pasnau Abstract 40-49, among others. There is a general agreement on a tripartite division, but there is also another “approach” which regards two other types of abstraction, sc. formal (*precisio*) and total abstraction, which traditionally are applied on the previous types of the triad, creating a sextuple division (see below n. 143). Cf. Simmons Thomistic 67, Cunningham 250, Pasnau Abstract 40-41, etc.)

Despite the fact that there is no falsification in abstraction of an extramental thing, the result of abstraction is never knowledge of a thing in full: “The quiddity of material things which the intellect, united with the body, comes to know is not the essence as it is realised individually in different things, but the universal essence.” (Elders 292) What is known in abstraction is the quiddity, a definition of the universal essence corresponding to an extramental thing, which includes common or “intelligible” matter, not *signate* matter. Accordingly, before these scientific types of abstraction are performed, there is a general or “default” act of abstraction at some point in the so-called first apprehension, which conveys a basic extramental thing’s knowledgeable quiddity:

And to insure an understanding of what the specifying principle is and what the matter is, it is necessary to point out that anything which belongs to a thing inasmuch as it has a specific form belongs to its specific form; for example, inasmuch as a thing has the form of a statue, it is proper for it to have a shape or some such quality. But what is related to a form as its matter must never be predicated essentially of a form. Yet it must be noted that no kind of matter, be it common or individual, is related essentially to a species insofar as species is taken in the sense of a form, but insofar as it is taken in the sense of a universal; for example, when we say that man is a species, common matter then pertains essentially to the species, but not individual matter, in which the nature of the form is included. (*InMet.* VII 9 § 1473)

This general abstraction of the extramental thing’s essence is the outcome of a first operation of intellectual acts, i.e., first and second apprehensions:¹³⁹ “First, by way of composition and division; thus we may understand that one thing does not exist in some other, or that it is separate there from. Secondly, by way of simple and absolute consideration; thus we understand one thing without considering the other.” (*ST* 1a 85, 1 *ad* 1) However, sometimes first apprehension refers to the general cognition of the extramental thing’s quiddities, including all kinds of intellectual or scientific quests; but

¹³⁹ See above chap. II Moreau p. 62-3, Colish p. 84, n. 53 and Lonergan p. 76, n. 39.

other times it only means a pre-theoretic cognition of the extramental thing, a simple answer to the question “what is this?” In this later case, a second apprehension based on composition and division (judgment) is needed in order to determine with precision the extramental thing’s quiddity or essence. (Kretzmann Philosophy 143)

These quiddities are not the result of “naïve” immediate perceptions of extramental things. (MacDonald 184) However, the creation of a *species intelligibilis*, where the information of the extramental thing’s essence is received by the potential intellect, is previous to any conceptualization (which corresponds to the creation of a *verbum mentis* or concept).¹⁴⁰ The abstractive act that results in the creation of a *species intelligibilis* is the most simple, general kind of abstraction. The outcome of a general first apprehension constitutes the grasping of a universal and intelligible quiddity, which differs from the individual extramental thing’s quiddity. This first abstraction necessarily excludes the individuating material conditions of the individual composite; yet, further abstractions strip other levels of materiality.¹⁴¹ Elders summarizes three different degrees of immateriality in every possible kind of knowledge:

1. The knowledge subject acquires concrete, individual forms which are abstracted from the physical things in which they are realised, but these forms or contents themselves remain concrete.
2. The acquisition of universal forms from material things, sc., forms expressing an essence, but so that the individual characteristics are left out. In this process a form is freed from individual matter. This happen in intellectual knowledge.
3. Higher forms of knowledge as they may exist in purely spiritual beings. (181)

¹⁴⁰ “The mental word is ‘expressed and formed,’ a phrase that highlights intellect’s active role in fixing the content of the concept... The role of the *verbum* is thus different from that of the intelligible species. The latter, although it is a sense the object of intellectual cognition (or so I’ve claimed), operates at a nonconscious level save in exceptional cases of introspection.” (Pasnau Theories 269)

¹⁴¹ Cf. Elders 293 and Pasnau Abstract 43.

The last degree of knowledge corresponds to the angelical and divine knowledge.¹⁴² The first degree corresponds to the general abstraction produced by the first operation or apprehension, and the second degree involves all the scientific types of abstraction explained above.¹⁴³ Our interest lies in the fact that the outcome of the first general abstraction implies the acquisition of an extramental thing's *form* as universal essence.

To review the main points, this *form* cannot be an extramental thing's causal *form* (*forma partis*); what is abstracted is the *form* considered as essence, the *forma totius*.¹⁴⁴ Nevertheless, this *form*, differs not only from the causal *form*, but it also differs from the individual quiddity of the extramental thing:¹⁴⁵ it is the intelligible quiddity that can be grasped by the mind.¹⁴⁶

Another point that must be observed is that this *form*, which is conveyed by the sensible *species*, then by the *phantasmata*, and finally by the *species intelligibilis*, is not directly caused by the extramental thing's composite, although it "occasionally" originates in the cognition of the thing.¹⁴⁷ Yet, knowledge of a *species* is knowledge of an

¹⁴² "The greater the degree of this immateriality, the more active will be the form and the more perfect the cognition." (Holloway 128) Cf. *SCG* II 68)

¹⁴³ "[The agent intellect] can disengage an immaterial essence from the signate matter of the phantasm in such a way that the intelligible species is an essence considered as a whole supposit, substance plus accidents in a confused indeterminate sort of way; for example, man. Or it can dematerialize the object in such a way that the intelligible species positively prescind from all further individuating notes; for example, humanity. That is the difference between St. Thomas *abstractio* vs. *precisio*." (Cunningham 252)

¹⁴⁴ "The problem of universals cannot concern the form of the part, for what is said of a composite does not concern only one of its parts, but the whole thing... the problem of universals concerns only the nature or essence understood as the form of the whole, that is, as the complete essence." (Gracia Cutting 31)

¹⁴⁵ See above sec. 3.2.2.2 for the difference between these *forms*.

¹⁴⁶ "Human intellects can grasp only the forms of things and not the designated matter contained in their essences." (Edwards Aquinas 156)

¹⁴⁷ "Aquinas' belief that a corporeal object can make an impression on the senses because the senses, being composite, are corporeal, even though the sense impression itself is incorporeal. But here the causal chain must stop. It cannot reach into the corporeal intellect without violating the principle that the agent must be more noble than the patient." (Hoffman Thomas n. 8 – on p. 76)

extramental thing.¹⁴⁸ The question is, what is it that we understand, the *species* or the extramental thing?¹⁴⁹ Aquinas' answer is that the *form* which is understood is the extramental thing's *form*, the essence of a thing, not the *species*:

For when our intellect understands itself, the being of the intellect is not identified with its act of understanding; because the substance of the intellect was in potentiality to the act of understanding, ere it understood actually. Consequently the being of the intelligible species is distinct from the act of understanding, since its being consists in its being understood. Therefore in the man who understands himself, the inwardly conceived word is not a real man, having the natural being of a man, but is merely a man understood, that is, the likeness of a true man, apprehended by the intellect. Whereas the Word of God, for the very reason that it is God understood, is true God having by nature the divine being, because the natural being of God is not distinct from His act of understanding, as we have already stated. Hence it is said (*Jo. I. 1*): *The Word was God*: which shows, since the statement is absolute, that the Word of God signifies God in very truth. For man's word cannot be called a man simply and absolutely, but only with a qualification, namely a man understood. Hence this statement would be untrue, *The word is a man*, whereas this may be true, *The word is a man understood*. (*SCG IV 11*) [stress is ours]

The *species*, as an accidental *form* of the soul, conveys the extramental thing's *form* or essence, but it is not itself a mere copy of it in its sensible status, as the individual quiddity of the composite;¹⁵⁰ otherwise, to understand a *species* would imply at once to understand an individual extramental thing's *form* or essence.¹⁴⁹ Correspondingly, if we would have an individual thing's *form* in the mind without a representative *species*, then the act of understanding would be a direct realist act of cognition, but this is precisely what Aquinas denies: "the being of the intelligible species is distinct from the act of understanding, since its being consists in its being understood."¹⁵¹

¹⁴⁸ "Although the intellect knows things in a general way, it knows them nevertheless as they are in themselves. We do not know concepts, but things." (Elders 293)

¹⁴⁹ See above chap. I, p. 13.

¹⁵⁰ See below sec. 3.3.1.

¹⁵¹ See also below sec. 3.3.2.

On the other hand, the act of understanding is the union of the extramental thing's *form* and the intellect.¹⁵² Nevertheless, the content of the *species intelligibilis* is the extramental thing's *form* as universal essence, as intelligible structure, not the individual extramental thing's *form*: "Precisely because the *same* essence is found in the thing and in the subject [knower], it can be said that in the act of thought '*intellectus et intellectum sunt unum*'. " (Bazan 434) Therefore, Aquinas is a realist representationalist because the understanding of an essence, being different than the *species*, but conveyed by it.

The union between knower and known is the last formal phase of the first apprehension, before the production of the "concept" or *verbum mentis* by the agent intellect.¹⁵³ In order to achieve this union, a *species* is conceived as an accident of the soul, and its instrumental function is to make this union *ontologically* possible,¹⁵⁴ because the individual extramental thing's *form* cannot be grasped as such. Thus, a *species* must be conceived as a type of *form* which can "re-present" the extramental thing's *form* considered as essence in the mind. The *species* makes possible the union of the extramental thing's *form* with the possible intellect by conveying the former to the latter. For this reason, intellective cognition is a special kind of *information* of the passive intellect:

The intelligible species is no longer the object of knowledge, but a representation or *similitudo*. As such, it is simply *that by* which we know the object [*of knowledge*], the object itself being a form or quiddity which *transcends* the modes of being that it assumes either in the thing, the image or the *species*. (Bazan 436)

Thus the result of this actuation of the possible intellect is the *formal*

¹⁵² See above, chap. I p. 39, n. 59 the union of knower and known.

¹⁵³ It is one act, not a process, and thus it is only formally divided.

¹⁵⁴ "In our world there are no subsistent intelligible essences of the concrete sensible things. The reason is that these beings exist only in matter. Consequently, the intelligible species, which we need in order to think, must be constructed by us." (Elders 301) Cf. *ST* Ia 79, 3 *ad* 3.

union of the thing-known with the potency of understanding, in such a way that they become *one principle* (the possible intellect *in actu*) capable of actually producing the concept, in the terminal act of understanding. (Bourke Operations 87-88)

It is also very important that, in order to achieve this cognitive union between the extramental thing's *form* and the possible intellect (the union of knower and known), an act of abstraction is not simply required because, as Holloway notes, every alteration requires in one way or another some abstraction: sensible change, physical *information* and thinking.¹⁵⁵ Abstraction is a necessary condition, but not a sufficient one. What is specially required for a cognitive act is certain type of abstraction which allows a special union between two *forms*:¹⁵⁶

[Within its own composite,] the union the agent had with the form was a material union, a union of matter and form, whereas the union that the patient has [in cognition] with the form is a formal union, a union of form with form. (Holloway 122)¹⁵⁷
The act of cognition is a union, an assimilation of form by form. (126)

The *actualization* or "*immutatio*" (alteration) of the passive intellect by the combined activity of the image (phantasm) and the agent intellect in the creation of a *species intelligibilis* is different from other physical acts of efficient causation.¹⁵⁸ If it were similar to the ordinary efficient causation that occurs in natural *information* (as in fire heating the water or as in the *formal* causation of the hylomorphic composition), then

¹⁵⁵ "Commenting on the words of Aristotle 'It is universal and common to all the senses that they are receptive of forms without matter' (*DA* II 12 420a17-19), St. Thomas puts the objection that to receive a form without matter, and thus in some way abstracted from matter, seems to be true of all things that undergo change, whether they be cognoscitive beings or not." (120) [*InDA* II 12, 24] "the one [cognitive] union is intentional, the other [efficient causation among extramental things] merely physical. Yet in each case there has been a certain 'abstraction' from matter, for in each it is the form rather than the matter that has been assimilated" (123)

¹⁵⁶ See also Pasnau above, chap. II, p. 101, especially n. 86.

¹⁵⁷ Cf. *Sent.* IV 49, 2, 1 *ad* 10.

¹⁵⁸ Cf. Holloway 127. See also above chap. I, pp. 7-8.

the mind would become a natural likeness of the known thing.¹⁵⁹ However, due to the spiritual mode of being of the intellectual and spiritual acts, this is impossible: what is needed, then, is a “special” mental *form* which (1) can grasp intentionally the extramental thing’s *form*, (2) does not efficiently cause the potential intellect to become something else and (3) conveys the extramental thing’s *form* considered as essence to the mind. The *species intelligibilis* does not “carry” the individual extramental thing’s *form* (the concrete quiddity of the composite), because this is unknowable as such (in its natural mode of being). The *species* “conveys information” of the extramental thing, not its own “being.” What is this conveyed information? How is it conveyed? These questions are addressed in the next section, and the answers reveal that the extramental thing’s *form* considered as essence or nature is not a “being,” but an intelligible structure (information).

3.3.2 Essence as Intelligible Structure

As we have seen, what is understood is an extramental thing’s *form* considered as essence. The individual extramental thing’s *form* itself is not be “carried” into the mind, and thus a special *form* is needed for cognition: this is the *species intelligibilis*. In contrast, Peifer incorrectly describes the *species intelligibilis* as carrying the selfsame individual extramental thing’s *form* into the mind.¹⁶⁰ Conceived as a copy of extramental thing’s causal *form*, this ambiguous account of *species* makes it function sometimes as a *form*, which efficiently *informs* the potential intellect, and, at other times, as a carrier of

¹⁵⁹ See the difference above, section 3.2.1.

¹⁶⁰ See above chap. I, p. 54-5.

the extramental thing's *form*, which itself *informs* the intellect.¹⁶¹ This view also reveals a misunderstanding of the alteration that takes place during the act of cognition: in this account the *species*, conceived as a causal *form* and acting as a *formal* principle, efficiently *informs* the intellect. However, while the *species* cannot behave as a standard *formal* principle of being: it certainly is a *form* (an accident of the soul) which conveys intelligible information (data) about an extramental thing, because it brings the extramental thing's *form* into the mind. It does not, however, perform either efficient or *formal* causation into the passive intellect. This is what we understand as the intentional character of the *species intelligibilis*.¹⁶² In conclusion, an extramental thing's *form* considered as essence is related to the intentional transmission of intelligible information rather than to a causal *formative* act.¹⁶³

Species and phantasms, then, are called “instrumental” causes because they do not affect the passive intellect by informing it. An instrumental cause is defined as “a cause which is moved by a principal agent to produce an effect that the agent cannot produce alone, or at least cannot produce easily.”¹⁶⁴ A phantasm is needed to produce a *species intelligibilis*, and a *species intelligibilis* is needed to convey the extramental thing's *form* considered as essence. Both are instrumental causes of the act of cognition; the extramental thing's *form* is known, not as it exists in a natural mode of being, but as

¹⁶¹ See pp. 55 and 56 respectively.

¹⁶² See above, section 3.1.3, especially pp. 134-6, and the end of section 3.1.5, pp. 142.

¹⁶³ “Essence and form have this note in common that both are said to be that by which something is.

However, form, which causes a thing to be actual, is related to matter, whereas quiddity or essence is related to the *supposit*, which is signified as having such and such an essence.” (*InMet.* V 10 § 904)

¹⁶⁴ Preston 8. The quote continues: “The instrumental cause has its own proper activity. It must, however, receive the instrumental activity from the agent. The essential nature of an instrument requires that it be applied in the production of an effect by a principal agent which communicates to the instrument an influx of being which is higher than the instrument's proper activity. The effect that is produced by the combined activities of instrument and principal agent must be attributed wholly to both. The dual contribution of principal agent and instrument are related to each other as form to matter. For the subordination of the instrument to the agent, there results an unique cause and an unique effect. (8-9)

essential information. It means that the content of the *species* is not a “being,” but information about *this* being: what is known is the extramental thing’s *form* as nature or intelligible structure.

To neglect the difference between the ontological status of *species intelligibilis* as an intentional mental *form* and its content and the *form* as intelligible structure or nature has lead many scholars to carelessly identify the *species intelligibilis* and the intelligible *form* of the extramental thing and, consequently, to discard the view of Aquinas as representationalist:

Moderate realism... holds that one must distinguish between the thing and its mode of existence: the thing exists in the mind as universal, in reality as individual... Thus the objective concept, the concept considered as to what it represents, is identical with the form or the act out there in reality, but the mode of existence of the thing differs in the mind, where it is universal, and in reality, where it is individual. (Connolly 74)

The difference between an extramental thing and its concept is not the immateriality, or the intentional mode of existence, of the “same” *form*. The difference lies in a deeper ontological level: concept and thing are two instantiations of the same nature or intelligible structure; one is a thing in extramental reality, which has both a causal and a quidditative *form*; the other is a mental representation or likeness of this individual extramental thing’s *form*.¹⁶⁵ It is the same ontological difference between universals and things explained by Aquinas in *Being and Essence*.¹⁶⁶ To posit the existence of an individual extramental thing’s *form* in the mind, or to believe that the

¹⁶⁵ “Because of the real distinction in the order of existence we cannot simply identify the thing itself and the thing as known, the intentional object or concept. Numerical identity holds, not in the order of existence, but in the order of intelligibility. By forming the concept, the intellect is intentionally related to the thing itself and attains it in its intelligible determination, its ‘quiddity’ or ‘ratio’.” (Murphy 268)

¹⁶⁶ “Man, considered in relation to the mind, is both predicable of many (i.e. universal) and exists in it as a concept. And man considered in relation to the world of individuals, is one in each and every man (i.e. individual) and exist as individuated.” (Gracia Thomas 140)

“objective concept” is identical with “the form or the act out there in reality,” implies the existence of a third intelligible “being” which Aquinas would not accept. This view also creates the problem of representation faced by modern philosophy: how is the mental entity similar to an extramental thing? What features can these beings have in common?¹⁶⁷

The *species intelligibilis* and the extramental thing’s *form* are identical because they share something that is epistemologically similar, not ontologically:¹⁶⁸ they share an intelligible structure, a nature which is not “properly” a being, and this nature or intelligible structure is cognized as the knowable quiddity, as the likeness of thing’s *form* considered as essence. This nature or *form* does not exist as a being, it is a *form* as intelligible structure:¹⁶⁹ it is the *formal* likeness between the *species* and the thing’s essence. Thus, epistemologically speaking, Connolly’s analysis is correct; however, there is not an ontological identity between the extramental thing’s *form* considered as essence or nature, or between the universal concept and the extramental thing. The identity is given by the *form* as nature (creating a *formal* likeness), an intelligible structure which is found in instantiated extramental things (the composite) or as universal mental beings:

Natures exist within the intellect, but correspond to things in the world. This correspondence – a ‘likeness’ between concept and object... is what insures the truth (veridicality) of our concepts, and by extension is what insures the truth of language. As for what insures the truth of this correspondence... the nature of the stone exist within the intellect, and

¹⁶⁷ See above chap. I pp. 17-18 (especially n. 34 and 39); this is especially the concern of Kenny, pp. 40-1. See also the same worries above in chap. II: Pasnau, p. 103; Hoffman p. 114; King, p. 118-9. See a full explanation above sections 3.1.3, especially n. 34, and 3.1.6, especially n. 50.

¹⁶⁸ “The nature as such is the nature in itself alone as intelligible structure only... When such a nature does exist, however, Aquinas maintains that it exists either in individuals or in an intellect because in itself it has no existence.” (Edward Realism 82)

¹⁶⁹ “Absolutely, an essence is neutral with respect to being and unity because its definition contains no reference to either of these... essences considered absolutely cannot be said to be one or many, or to exist in individual things or in the mind.” (Gracia Thomas 140) “As Owens has already suggested, Thomas rejected the existence that Avicenna accorded to the nature itself.” (Gracia Cutting 36)

also exist in stones in the world [*De 108 articulis*, prologue 1-7]. In the world, it is ‘that which *causes* the truth in the conception of the intellect’—that is, the conception within the intellect is the end result of a cognitive process that began with a sensory perception of the stone, and culminated in an abstract representation of the nature of stone. Our reason for being confident that our concepts are true is that we can tell a causal story about how those concepts were generated by the things themselves. (Pasnau Abstraction 56)¹⁷⁰

Adler’s account on the phantasm and the *species intelligibilis* is another example of this misconception regarding the intentional role of the species. Overlooking the intelligible structure transmitted by concepts, that is the *species*, and mental images, he denies the immateriality of the phantasm *because of* the content.¹⁷¹ He attributes a sensible-physical mode of being to images because they represent the thing’s individuating conditions.¹⁷² In view of that, a phantasm is supposed to remain part of the composite because the intentionality of a mental being cannot be separate from its content:

...By sharply separating the intentional from the entitative being of the phantasm it generates a puzzle about the materiality that still clings to the phantasm in its intentional being, for in that mode of being it must still be subject to individuating conditions derived from matter in order to serve as the *quo* in our knowledge of singulars. (581-2)

This inaccurate view originates in a confusion of the immaterial mode of being of mental *forms*, such as phantasms, *species*, and concepts, with the essential data conveyed

¹⁷⁰ Although Pasnau is speaking here about a causal dependency starting from sensible cognition, he has acknowledged the double physical and immaterial activity of the senses, as we saw above (chap I, p. 8). Thus, his “causal” connection must be understood in the sense explained by Hoffman (see above n. 147)

¹⁷¹ “The grade of immateriality attributed to the phantasm appears to be a mixture of incompatibles—on the one hand, an immateriality akin to the immateriality of a concept; on the other hand, a materiality from which the concept is exempt, namely, the individuating conditions that give the phantasm the singularity that it requires to be the means of our knowing singulars.” (580-1)

¹⁷² “In its entitative being, the phantasm is an act of the knowing subject; like any other act, it is entitatively an accident inherent in that subject; its mode of being is material because it is the act of a cognitive power that is corporeal; the phantasm, in short, exist in the brain of the knowing subject.” (581)

by them. In other words, he confuses the content of the mental beings –the intelligible structures—with their intentional role:

In regarding the phantasm, I have retained the notion of intentionality, but denied that intentionality is a special mode of being. In the spirit of Ockham's razor, I am charging the Thomist with a needless multiplication of modes of beings. The distinction between entitative and intentional being need not to be posited to explain knowledge... (582-3)

However, the intentional character of a *species* or a phantasm is not separated from its being for Aquinas. What is separated is the intentional content from the intentional entity.¹⁷³ Aquinas affirms that the individual extramental thing's *form* or concrete essence, due to its "*signate matter*" from which the individual is determined, cannot be known. What is known in the phantasm is the extramental thing's *form* as nature.¹⁷⁴ The material content of the phantasm is, like in the *species intelligibilis*, data: an intelligible structure, not a being. If truth be told, a phantasm conveys information concerning the individual extramental thing, with some particular details.¹⁷⁵ However, as an intentional being, it represents the essential information as intelligible structure; it never "receives" or "has" another intelligible being other than its own. Likewise, the phantasm is not a kind of material being *informed* by the extramental thing's causal *form*, as Adler suggests.¹⁷⁶ Of course, the phantasm is "like" the matter from which the universal *form* of the *species intelligibilis* is extracted:

¹⁷³ "Under its entitative aspect the concept is the medium by which the intellect attains the thing itself. Under its intentional aspect the concept is the thing itself actually known, that which is understood about the thing." (Murphy 267)

¹⁷⁴ See above, sec. 3.2.2.2, for the difference in *forms*, individual and universal (essential quiddity).

¹⁷⁵ "The phantasm is likened to a *material dispositive cause*... [which] is matter determined by the accidents of the inhering form in such a way that this matter is disposed to receive only a certain type of form... The phantasm, however, is already intelligible in potency; that is, it is already determined to represent a particular external object and does not change. It never receives the species as matter receives the form." (Dunne 190-1)

¹⁷⁶ "As received by the matter of the brain, [the extramental thing's *forms*] are not forms that are, absolutely speaking, *separated from matter*, but forms that are, relatively speaking, *in a different matter*." (586)

Saint Thomas knows that the quiddity is received first at the level of imagination (where it is already to a certain extent freed from matter). The image is necessary not only *before* the constitution of the species, but it is also necessary *after*, because it is the *fundamentum speciei*. (Bazan 434)

Still, it is not a material being in itself; its role is as “matter to form,” as the possible intellect is regarded as material with respect to the agent intellect. To conceive a phantasm as part of the physical composite or as an accident of the soul may require further discussion. Nevertheless, most Aquinas scholars distinguish between a physical and sensible reception of an extramental thing’s being by the composite’s senses, and a spiritual reception of the extramental thing’s *form* by the soul.¹⁷⁷ There is a noticeable difference between the intentional “object” and its intelligible content. The thing’s quiddity received in the phantasm, as well as in the *species intelligibilis*, later universalized by the concept formation, is an intelligible structure. It is data or information about an extramental thing and, epistemologically, it is independent of the being which represents it.¹⁷⁸ What makes mental beings and extramental things similar is the intelligible structure, not a set of common properties between them. This is why a realist representationalism of the sort Aquinas’s theory of knowledge is, does not concern itself with difference and similitudes between the representation and the represented beings.

¹⁷⁷ See above chap. I, p. 9 and n.16, Chap II, n. 86, but especially n. 118, and above n. 147.

¹⁷⁸ In any case, the quality of the information will affect not just the phantasm, but also the species: “the species which will be received by the possible intellect is determined according to the nature represented in the phantasm.” (Dunne 190) This determination, however, is related with the quality of the information received, and not with the representative being which conveys the information. See above sec 3.2.1, p. 152.

Black's account also reduces the intelligible structure to a *species intelligibilis* or a likeness of the extramental thing's *form*.¹⁷⁹ According to her, in later works Aquinas diminished the identity between the extramental thing's quiddity and its counterpart, the known essence or the nature in the mind, turning the latter into a mere similitude or representation of the former.¹⁸⁰ Contrary to Avicenna, Aquinas denies a proper mental existence of the "real" extramental thing's quiddity in the mind.¹⁸¹ Indeed, in Black's view, the nature itself is denied existence at all:

In Aquinas's replies to the first two objections of [*ST* 1a 85, 2 *ad* 1 *et* 2]... [he] both denies that the common nature actually exists anywhere but in concrete singulars and substitutes the intelligible species for the nature as the true subject of mental existence. (72)

Unlike Avicenna, however, Aquinas does not identify this mental existence as an instance of the quiddity in its own right. Rather, he is insistent that the nature or quiddity "exist only in singulars," and that the fact alone of its being understood as an abstract universal "is in the intellect." (73)

The Avicennian alternative, that the selfsame quiddity could actually exist in my intellect and in yours as well as in concrete singulars, is not entertained by Aquinas. (77)

Not only is the common nature to be denied any existence in its own right –any *esse proprium*– it is to be denied all existence except in the concrete singulars (and of course, in the divine intellect). (78)

Black's points are true in this sense: Aquinas strictly denies both that we can know the individual extramental thing's essence and that natures exist in themselves. But he admits that we can know a universal quiddity or essence, that is, an intelligible

¹⁷⁹ "All we really mean when we refer to *esse in intellectu* is that the thing's likeness, in the form of the intelligible species, exists in us" (72) "And since the species alone fits the description of an immaterial universal object, it follows that it is the only viable candidate to be the understood object." (73)

¹⁸⁰ "Aquinas glides smoothly from stronger identity claims to weaker similitude claims. In explaining the different ways in which sensible and intelligible objects exist in the knower, Aquinas... uses the language of similitude or representation" (68)

¹⁸¹ "Aquinas appears even more reluctant to grant the Avicennian claim that the quiddity itself –rather than its presentation via some species– can properly be said to exist in the intellect." (69) "Aquinas likewise carefully avoids to talk of the quiddity itself actually existing in the mind." (73)

structure that is abstracted from the concrete hylomorphic composite, which corresponds to the nature itself: “Human intellects can grasp only the forms of things and not the designated matter contained in their essences.”¹⁸² She acknowledges Aquinas’ interest in these universal essences,¹⁸³ but she also criticizes Aquinas’ reduction of a “real” Avicennian common nature to this representation of an inexistent abstract nature. To make matters worse, Aquinas is regarded as reducing the mental existence of the common nature to the representative being of the *species intelligibilis*.¹⁸⁴ Thus, what Avicenna calls the nature as an accident of the mind, corresponds to Aquinas’ *species intelligibilis*.¹⁸⁵

Black does not distinguished the representative *species* as a mental being from its content. In addition, she also does not realize that the content of this representational instrument *cannot be* another mental being: it must be, as Aquinas points out, an intelligible structure. The nature of something is only the information about the essential features of extramental things.

St. Thomas’ abstraction of a whole is characteristically... a movement *to* the intelligible and, hence, to the actual... [it] yields an object of thought

¹⁸² Edwards Aquinas 156. Cf. *SCG I* 65: “Now all knowledge is the result of assimilation between knower and known: yet there is this difference, that in human knowledge assimilation is brought about by the action of sensible things on the human cognitive powers, whereas contrariwise in God’s knowledge it arises from the action of the form of the divine intellect on things known. Accordingly the form of a sensible object, being individualized by its materiality, is unable to transmit the likeness of its singularity to that which is altogether immaterial, and it can only reach those powers which use material organs; but it is transmitted to the intellect by virtue of the active intellect, in so far as it is wholly stripped of material conditions: and so the likeness of the singularity of a sensible form cannot reach as far as the human intellect.”

¹⁸³ “He is still ready to accept the claim that the universal likeness of the quiddity, in the form of the species, is a concrete existent multiplied amongst a variety of individual intellects.” (74) “Knowledge is ‘singular with regards to its subject,’ the individual subject, even though what the intellect understand is ‘something universal’.” (77)

¹⁸⁴ “Aquinas does not view the individually existing intelligible either as the object known or as the nature residing in a new conceptual substratum. Rather, he views it as an instrument and as the likeness of a common nature that only truly exists in external things.” (77)

¹⁸⁵ (77-8) “Avicenna’s remarks on the conceptual being of the quiddity as the accident of a particular mind are translated into the language of the instrumental species” (77)

precisely as an intelligible nature freed by abstraction from the matter which adds nothing to, and, in fact, shrouds its intelligibility. (Simmons Defense 431)

Nature, for Aquinas, is the *ratio* by which we establish truth and understand the extramental world, not a mental being. Without a doubt, a nature cannot be any kind of “being” at all. If Aquinas, as Black claims, must accept that the common nature inheres in the mind as a mental being, then he would need to explain the following issues: (1) why is there a difference between this mental nature and the concrete nature instantiated as an extramental thing; (2) what set of properties are common to them; and, more importantly, (3) why is there one nature and not many.

Aquinas avoids these problems establishing a representational being (in charge of conveying the extramental thing’s essence) and an intelligible structure as its content.¹⁸⁶

A nature does not exist in itself but is instantiated either as an individual extramental thing or as quidditative concept. Natures not only exist in individuals, as Black understands, but also (in another mode of being) they exist in different minds:

The fact that that which is one for all can be understood through species which are multiplied in diverse individuals is due to the immateriality of the species, which represent the thing without the individuating material conditions which permit a nature that is specifically one to be multiplied numerically in diverse individuals. (*QDA 3 ad 7*)

When scholars fail to recognize the intelligible structure of natures as the basis of cognitive acts, misleading interpretations follow. Many authors, following Aquinas’ analogies on *formal* and efficient causation, search for a *form* as an intelligible being which can “cause” cognition. Certainly, Aquinas speaks about *forms* in cognition:

¹⁸⁶ Gracia concludes that Aquinas “cuts the Gordian knot” of the universal problem by asserting that the nature does not have a proper existence, but can be instantiated either as a particular or a universal in the mind. (Cutting 35, Thomas 140) In reference to whether the universal natures exist in themselves or in the individual things, “Thomas... rejects the whole question as inappropriate.”

All cognition follows some form which is the principle of cognition in the knower. Such a form can be considered under two aspects: either with relation to the being it has in the knower, or in the reference it has to the thing it represents. Under the first aspect, it causes the knower actually to know. Under the second, it limits the cognition to some definite knowable object. (*QDV* II 10, 4c.)

When the very likeness of the cause in the effect is the form by which the cause is known by its effect: for instance if a box had an intellect, and were to know by its own form the art from which that very form had been produced in likeness to that art. (*SCG* III 49)

However, to search for a *formal* and efficient causation of the passive intellect implies extending this analogy too far. The alteration of the passive intellect does not correspond to a physical change at all. Moreover, a *species* is not a causal *form*, it is only a representative mental entity that allows the knower to grasp the extramental thing's essence in an intentional way, without its natural being. Aquinas does not mean that the active/passive relation of the physical world takes place in cognition:

... It is clear that the knower and the known are related not as active and passive but as two things from which arises one principle of knowing. Consequently, for knowledge it is not enough that contact takes place between the knower and the known. It is necessary, rather, that the intelligible be united to the knower like a form, either by means of its own essence or by means of a likeness. (*QDVI* 8, 7 *ad* 3)

Stretching the "*formal*" requirement out to cognition, Jacobs and Zeis believe that the Thomist theory of cognition "is predicated upon the mind, *via* formal causation." (541) They conclude that knowledge implies an act of *information*: "In cognition, the activity of the mind is the actualization of the form of its object." (540) "To have a concept of things of kind K *at all* is for mind to be informed in some way." (542) As a result, a literal understanding of Aquinas' analogies regarding natural causation, along with the requirement of a *form*, leads them to a strict interpretation of the cognitive acts as *formally* caused:

The interpretation of cognition as actualization of form is supportive of epistemological and metaphysical realism in that there is an intrinsic likeness of cognition and object, on account of what is in the mind being there through transmission of form. It is not as though formal causation just “delivers” essences to the mind. Transmission of the intelligible form in cognition is not just like transmission of form in a ring’s impressing its shape in wax. The mind makes concepts... (541-2)

Cognition is a conceptual actualization of form... It is not that mind is a magical power to apprehend a special type of object. It is a capacity to be informed by what it causally interacts with... (545)

As a cognitive actualization of an intelligible feature of reality a concept is a response to what it applies to because its referent is its formal causation. (550)

As we saw above, the type of “causation” (Aquinas calls it “alteration”) that occurs in the mind, is totally different from physical causation.¹⁸⁷ Furthermore, we have distinguished between two types of *forms*,¹⁸⁸ and we saw that the extramental thing’s *form* grasped in causation is an intelligible structure, and not an intelligible being, and least of all a causal *form*.¹⁸⁹ Thus, the extramental thing’s *form*, considered as essence or nature, *cannot* act as a *formal*-efficient cause.¹⁹⁰ This is why a *species* is needed: the *form* as intelligible structure is “delivered” to the mind, not *formally* caused: “Now this understood intention, since it is the term, so to speak, of the intellectual operation, is distinct from the intelligible species which makes the intellect in act, and which we must look upon as the principle of the intellectual operation.” (SCG I 53) Jacobs and Zeis fail to see the difference between the *species* and its content. Likewise, they neglect the fact that cognition is the special union of two *forms*, not the result of *formal* causation.¹⁹¹ They think that the ontology of cognition implies a description which requires causal

¹⁸⁷ See above chap I. pp. 7-8.

¹⁸⁸ See above section 3.2.2.1.

¹⁸⁹ See the previous section.

¹⁹⁰ It is not a causation, but a union of *form* with *form*, as we saw above, in the previous section, p. 185

¹⁹¹ See above p. 181-2.

form, and thus *informative* acts; but this is not true, because the essential *form* of an extramental thing, is conceived either logically (definitional) or ontologically, never as a causal *form* in its natural being:

St. Thomas teaches the universal can be taken in a twofold way. On the one hand, it can be considered insofar as it is a nature involving an intelligible content... On the other hand the universal can be looked at as having been stripped of its individuating characteristics and as being thereby capable of taking on logical relationships to the inferiors from which it has been abstracted and of which it will be predicable in virtue of these relationships... Aspects which we might call respectively the ontological aspect and the logical aspect of the universal. (Simmons Defense 433)

Accordingly, we must emphasize that a representative *species* is, ontologically speaking, an instrumental cause of cognition.¹⁹² Its intentional role consists in conveying an extramental thing's *form* or essence to the mind, which in turn is an exemplar cause or intelligible structure. As Macnamara points out, "for a *species* to be *intelligibilis* it has to convey the intelligibility of that of which it is the impression." (80) The *species intelligibilis* contains nothing else but the extramental thing's *form* considered as essence; it is contained as information (data): "the proper objects of knowing are the natures of things apprehended by individual knowers by means of representative intelligible species bearing the same *ratio* or intention in another mode of being."¹⁹³ Nature, essence, *ratio*,

¹⁹² See above p. 187, along with n. 164.

¹⁹³ Taylor and Herrera, 92. This conveyed *ratio* or intention (which correspond to the nature or intelligible structure) is what they call *intentional transference* in Averroës: "From the external senses and its own apprehension, the common sense forms images which are deposited in imagination. These images, causally grounded in the world, are said by Averroës to be the subject which is the basis for the truth of the intelligible which is formed by abstraction. The needed formation of an intention suitable for presentation to the separate Agent and Material Intellects for abstraction takes place when the particular image or intention formed in the internal sense powers is denuded of non-essential characteristics through the activity of the cogitative power and deposited in memory. This intention, still the intentional form of a particular existing in the human brain, is then presented before the separate Intellects for abstraction. For Averroës, this involves the *intentional transference* of an apprehended image or intention from one mode of being into another, from being an individual intention which is intelligible in potency into being an intention intelligible in act received in the separate Material Intellect shared by all human beings. In this

and intelligible structure, are terms used by Aquinas in order to express an extramental thing's exemplar *form* that is grasped by the mind in its cognitive union with the thing.¹⁹⁴ Now, it remains explain how this intelligible structure can be conceived within the realist representational theory of Aquinas, as the union of knower and known.¹⁹⁵

3.3.3 Representational Union of Knower and Known

How is the essence, the conveyed extramental thing's *form*, understood? What does it mean *to be* an intelligible structure if, it is not a "being"? How does the mind become "one" with the extramental thing's *form*? For Aquinas claims that: "it is necessary that that which is understood be in the knower and one with him." (*QDP* 9, 5) Cognition implies the union of two *forms*: the soul and the *species intelligibilis*.¹⁹⁶ But this union cannot be conceived as mere *information* of the possible intellect by the *form* of the *species*: a *species* is nothing but a representation of the extramental thing's *form*;¹⁹⁷ as such, a *species* is an instrumental cause.¹⁹⁸ The represented thing's *form*, in turn, is not a causal *form*, but an exemplar *form*.¹⁹⁹ it is the essence as intelligible structure. However, the result of cognition is the nature instantiated as a universal concept. Is this concept the extramental thing's *form* united with the passive intellect? No, the concept, like the *species intelligibilis*, is an intentional *form*, an accident of the intellective soul,

way, the subject by which the intelligible in act is true consists of the image in the internal sense powers of the individual human knower who has derived the content from sensory experience of the world." (91)

¹⁹⁴ "Essence is nature in metaphysical terms, and is the *ratio* of our logical definitions or quiddities." Cf. Doig 207.

¹⁹⁵ We have advanced some understanding of this union in chap. I, p. 39, n. 59, as well as above, pp. 183-4, but now we have to examine this issue in detail.

¹⁹⁶ See above sec. 3.3.1, p. 185.

¹⁹⁷ "What we call a 'representation' is *definitively not* the inherent form of the represented thing *simpliciter*, but the inherent form of the represented thing *intentionally existing in the represented thing*." (Klima Tradition 4)

¹⁹⁸ Again, see previous above p. 187, along with n. 164.

¹⁹⁹ See above sec. 3.2.2.2, p. 168.

whose function is to present the extramental thing's *form* to the mind. It has no other function than to represent an intelligible structure. If the concept were an independent epistemological being with a proper nature, then a representationalist would need to account for the similarities between the representative mental being and the represented extramental thing. Likewise, if the extramental thing's *form* were an intelligible being ("carried" by a phantasm, *species* or concept), the same representational problems of similarity between these two beings would arise. Additionally, Aquinas would need to give an account of how two intelligible beings, the passive intellect and the concept or thing's *form* are one "being." Hence, in the definition of a concept, Macnamara points out that it only conveys an intelligible structure:

A concept is a mental representation of structural relations in isolation from any perceptual properties that may be associated with them. When the structure to be represented is a substantial form, the related concept is an *intelligible outline*, which we construe as a blueprint. (83)

This outline or structure –as Aquinas calls it– is what gives intelligibility to the cognition: "Natures as such are rather the common ground of reality and intelligibility, eternal and immutable, knowable by God and creatures alike, capable of creation but of a different order from the created things which participate in them."²⁰⁰ Therefore, it is the nature or intelligible structure united with the intellect, not the concept itself or an intelligible *form*. As a consequence, inasmuch as the mind "thinks" this intelligible structure, it becomes one with the extramental thing's *form*: the mind "acquires" the

²⁰⁰ Quote continues: "A created thing is said to be true –true through its nature– because it is in its intelligible structure a likeness of the divine mind. Similarly, a created intellect is true when there is a conformity or likeness between its concept of a thing and the thing itself. The basis for the conformity in each case is the nature itself, the intelligible structure which takes on various kinds of existence while remaining yet one and the same and true in itself." (Edwards Realism 85)

intelligible structure. Klima posits this issue from the point of view of the unity between representation and represented:

For now we may be completely puzzled about how the inherent form of the represented thing *simpliciter* is the same as, or is distinct from, the inherent form of the represented thing *intentionally existing in the represented thing*. (Tradition 4)

Edwards, as well, posits the same situation but from a different perspective: the unity between two minds with respect to an intelligible structure or essence concerning knowledge:

The knowledge shared by the teacher and pupil, for example, is one and the same. But such intelligible structures are not numerically identical among individuals of a kind so they must have another sort of identity. (Realism 90)

One way in which Aquinas accounts for the union of knower (mind) and known (thing's nature) is by using the simile of the mirror:

The likeness in the intellect, however, is not abstracted from the phantasm as from an object of knowledge but as from a medium of knowledge—after the manner in which our sense receives the likeness of a thing which is in a mirror; it is directed to it not as to a thing but rather as to a likeness of a thing. Consequently, from the species which it receives, our intellect is not applied directly to knowing the phantasm but rather the thing whose phantasm is presented. (*QDV I*, 2, 6c)

The cognition of an extramental thing is made possible by a representational mental being (in this case, the image or phantasm). But the union between the intellect and an extramental thing takes place through a perception of the thing's quiddity through the phantasm, in the same way in which the eye receives a physical image of a real extramental thing through a mirror: what is seen is the mirror's image, but what is "really" seen is the extramental thing in the mirror. There is only one act of cognition, and one

known thing.²⁰¹ The mirror's image is not *the* thing and yet, by reaching the eye, produces cognition of *the* thing. Analogously, the quiddity of the thing in the phantasm reaches the mind and produces cognition by "actualizing" the intellect with the extramental thing's *form* considered as essence, i.e., by grasping the intelligible structure or nature present in the phantasm, and not by being directly affected by an individual extramental thing's *form* or the *form* of the representation (the *form* or accident in the mind which is the phantasm). According to Pasnau, this metaphor is exclusively used for knowing an extramental thing through a phantasm, and not as a simile for the *species intelligibilis*' activity. (Theories 271-2) Nevertheless, we can also find this metaphor in reference to the cognitive power and reasoning in general:

Even if a physical mirror knew itself, it would by no means know other things simply by knowing its own essence. It would know things only by knowing forms reflected in itself. Moreover, it would make no difference whether these forms were received from things or were innate in the mirror. (QDV I, 8, *ad* 8)

Thus if a mirror be well disposed the forms of bodies are reflected in it just as they are, whereas if it be ill disposed, the images therein appear distorted and misshapen. Now that the cognitive power be well disposed to receive things just as they are in reality, is radically due to nature, but, as to its consummation, is due to practice or to a gift of grace, and this in two ways. First directly, on the part of the cognitive power itself, for instance, because it is imbued, not with distorted, but with true and correct ideas: this belongs to {*synesis*} (judging well according to common law) which in this respect is a special virtue. Secondly indirectly, through the good disposition of the appetitive power, the result being that one judges well of the objects of appetite: and thus a good judgment of virtue results from the habits of moral virtue; but this judgment is about the ends, whereas

²⁰¹ "An effect may be known through its cause in several ways. First, when the effect is taken as the means of knowing the existence and qualities of the cause: this happens in sciences which prove the cause from the effect.--Secondly, when the cause is seen in the effect itself, inasmuch as the likeness of the cause is reflected in the effect: thus a man is seen in a mirror on account of his likeness. This way differs from the first: because in the first there are two knowledges, of effect and of cause, whereof one is the cause of the other; for the knowledge of the effect is the cause of our knowing its cause. Whereas in the second way there is one sight of both: because while seeing the effect we see the cause therein at the same time." (SCG III 49)

{*synesis*} (judging well according to common law) is rather about the means. (*ST* 2a 2ae 51, 3 *ad* 1)

Properly speaking, a mirror exists only in material things. But in spiritual things something is called a mirror in a transferred sense, because of the likeness taken from the material mirror. Thus, in spiritual things we call that a mirror in which other things are represented, just as the forms of visible things appear in a material mirror. (*QDV* I, 12, 6c)

The metaphor of the mirror fits Aquinas' expectations for an analogy of cognitive acts in general, and it is useful in understanding the representational role of the *species intelligibilis* and its intentional character. A realist representational view only claims that the object of knowledge is ontologically different from the extramental thing, and that the thing is known indirectly through a mental representation.²⁰² Thus there is a clear distinction between the image shown by the mirror and the information conveyed by this image. Klima makes clear the distinction between the object of knowledge and the known object by disengaging (a) an immediate object of knowledge from (b) an ultimate object of knowledge:

When you look into the mirror to fix your tie, you see your tie only *through* seeing its reflection. Still, of course, you do not fiddle with the reflection to fix your tie. Instead, you reach for your tie, because *what* you see by looking into the mirror is *your tie*, the *ultimate object* of your act of sight, which you see *through* its *immediate object*, the reflection. Indeed, for the reflection to be this immediate object is for it to function *only* as something that directs your act of sight to its ultimate object. That is to say, *to be* this immediate object is *to be recognized only* as something *through which* [*quo*] you see the object you want to see, and, at the same time, not to be recognized as *that which* [*quod*] you want to see, as the ultimate object, *to which* your intention, attention and action are directed *through* or *by* the former. (*Nulla* § 10)

The representational role of the *species* as immediate object of knowledge does not prevent a realist view in epistemology: the known nature or intelligible structure of a

²⁰² See above, chap. I, p. 17. See also above secs. 3.1.4 – 3.1.6.

thing is the ultimate object of knowledge. Is this enough to understand how the *species intelligibilis* conveys the thing's nature? We may now understand the role of the representative *species*, as well as how the essence "exists" in the possible intellect, especially when it is denied that there is an efficient-*formal* causation.

However, this metaphor cannot express the exact way in which the extramental thing's *form* or nature exists in the mind. The reason is that a mirror is a material thing and, as such, any cognition through a mirror remains a physical, sensible act. Hence, there are better ways to express what Aquinas understands by the union of knower and known. One way is the simile of a compact disk recording.²⁰³ Klima adopts this metaphor (Tradition 5-6): A CD track recording is a representation of a song's air vibrations at the day of recording, which existed (at that time and place) in its *esse reale*. The track in a CD is, on the other hand, not the original air vibrations in *esse reale*, but is the *esse reale* of the CD player's air vibrations (now that I am playing the song in my room). From the point of view of the *esse reale*, these "performances" are not the same entity; still, they are identifiable as *the same* song. How can the two distinct entities be one and the same song? Klima answers that

if it is the same song, then the only difference between the second and the first is precisely its time or subject... the two instances of playing the same song only differ in these material conditions. (7)

So far, we have seen that the representation of the song (the CD) and the represented song (the recording's performance) satisfy the notion of representational *formal* likeness,²⁰⁴ because the same *form* as intelligible structure is presented in both, the

²⁰³ See Stump example above, chap. II, p. 87.

²⁰⁴ "We can say that the two instances of playing the song do not differ in *form*. But a lack of difference or, as Aristotle would say, a lack of division of something is just the unity of that thing. So the lack of formal

day of the recording and the moment the CD track is played.²⁰⁵ Still, Klima notes that there is a problem with this simile: a CD is a non-cognitive representational device.

The representation in question is both singular and non-mental, indeed not cognitive at all. It would be cognitive, if it were the cognitive act of a cognitive subject, namely, an animal, and it would be mental, if it were the cognitive act of a mind, i.e., a cognitive faculty capable of receiving universal representations. (6)

Consequently, we must make possible for the representational *formal* likeness to universally represent the nature of a represented thing.²⁰⁶ So, is the metaphor of the CD useless for representational minds? No, insofar as an encoding system makes a representation identical with the represented thing.²⁰⁷ this is the intelligible structure “represented” by the CD track:

So the tiny pits of track one just *are* the song recorded, existing, *not* as it did in its realization as a series of sounds, i.e., as the modulation of the vibrations of a body of air, but as the information about this modulation encoded in track one of the CD. This is precisely what makes track one on the CD a representation of the song played in the studio. (7)

What is encoded, then, is the information or data about the represented being (the original song’s air vibrations). What is transmitted by the representation is the intelligible structure that represents the *form* or essence of the represented being. (Stump Aquinas’s 305) Now, we have seen that the *species intelligibilis* and the concept are *formally*

difference in the two instances of playing the song is nothing but the *formal unity* or *formal identity* of the *same song* played twice.” (7)

²⁰⁵ “Still... to satisfy the Thomistic conception of what a representation is we already had to invoke the notion of formal identity, for it is precisely this notion that is operative in the Thomistic conception when it claims that a representation is the form of the represented object in the representing thing, for the representation inherent in the representing thing can only formally, and not numerically, be identical with the form of the represented thing.” (6)

²⁰⁶ “The distinctive feature of an intellectual cognitive act is its *universality*. To be sure, as Aquinas often emphasizes against contemporary Averroists, such an act, an intelligible species, is universal *not in its being*, for it is a singular act inherent in an individual mind, but *in its mode of representation*, insofar as it represents several individuals in respect of what is common to them all.” (8)

²⁰⁷ “Now, since a system of encoding is just a mapping from one set of things (the represented things), to another set of things (the representing things), and just any set of objects can be mapped onto any other, it might seem that just any set of objects can represent any other set of objects.” (Aquinas 22)

intentional beings that only convey the information of the extramental thing. This information, however, does not have a “being” or existence in itself. How does the mind work in order to grasp this intelligible structure that lacks proper existence?

The song exists only when it is played... But when it *is* recognized as such by somebody, then the person in question forms a representation in his or her mind that *is* the representation of the same form as such. However, that form as such does not exist. Well, isn't that a problem? How can a representation be a representation of something, if there is nothing that it represents? (8)

A mental representation, in Aquinas, is a likeness of an essence or intelligible structure; there is not, as in the senses or in the CD recording, a physical and singular representation of an extramental thing or recording.²⁰⁸ The difference between the CD track and a mind is that the former has the intelligible structure physically instantiated, in *esse reale*, whereas the mind which understands the intelligible structure has it in *esse intentionale*:

But the same song, not merely sensually recognized by means of hearing and memory or by means of some possibly mechanical comparison of voiceprints, but *understood* to be the same in its numerous replays, different performances, encoded in different recordings and music scores *does not exist* as such, yet it *is understood* as such, as something formally the same in its numerically distinct materializations and representations, abstracting from their material differences. (Tradition 8)

This is the key element for an intentional and universal representation: however the mind has it, it has it as an instantiated intelligible structure; this instantiation is

²⁰⁸ “Now as the sense is directly informed by the likeness of its proper object, so is the intellect by the likeness of the essence of a thing.” (ST 1a 17 3c) “Now, exterior accidents, which are the object of sense and of imagination, are merely likenesses of a thing, not the thing itself. The object of the intellect, however, is “the quiddity of a thing,” that is, its essence, as is said in *The Soul*. [Aristotle *De anima*, III, 7 (431b 25-29); 6 (430a 27); 4 (429a 28)] Consequently, the likeness of the thing in the intellect is a direct likeness of the thing's essence, but the likeness which is in a sense or in the imagination is merely that of its accidents.” (QDV 8, 7 ad 2) “What is meant by abstraction of species from phantasm? The principal meaning clearly is that there is produced in the possible intellect a similitude of the thing presented by phantasm; this similitude is similar to the thing, not in all respect, but with regard only to its specific nature” (Lonergan 178)

formally identical with its represented being, the extramental thing's essence.²⁰⁹

Knowledge consists in the "*information*" of the passive intellect, the act that makes the intellect and the cognized thing's essence one. This is why a nature is in itself a "non-existent" intelligible structure; it is always either a thought or an extramental reality. The information conveyed by the representational concept to the mind, and the structure of the thing existing in the extramental reality, is just a codified system.²¹⁰ A mind and thing do not need to be numerically identical; they are merely *formally* identical.

So, the intellectual representation of the same song has something as its direct, immediate object, the form of the song as such, and has the different individual materializations of the same as its indirect, ultimate objects. (Klima Tradition 8-9)

"One and the same nature as such can exist in many numerically distinct individuals and in each case its real existence is tied down to the individuating conditions of that existence. Yet the nature as such in this thing can be truly identical with the nature as such in that distinct thing." (Edwards Realism 98)

Following the metaphor, and retaking his distinction between immediate and ultimate object of knowledge, Klima argues that the intelligible structure is the immediate likeness cognized through the *species intelligibilis*, whereas the ultimate object of knowledge is the extramental thing's essence that is known. This simile not only breaks away from the contemporary problems of identity between representative being (idea)

²⁰⁹ "Two individuals exist at different places at the same time. This says nothing against the possibility of their being identical in some intelligible character for intelligible characters (natures as such) are not the sorts of things that are bound to spatial and temporal existence. (except through the individuals which have them)." (Edwards Realism 98)

²¹⁰ "The resemblance in question here is the formal sameness of the same information encoded in different media, where the sameness of the information is secured by the relevant systems of encoding... So, in the same way, when an intelligible species encodes information about the substantial form of rocks in general, the intelligible species need not exhibit any physical resemblance to the substantial form of rocks. And the same goes for the immediate object of this species, the *intentio intellecta* of rocks in general." (Klima Tradition 9)

and represented thing,²¹¹ but also does not overpopulate the real world with natures existing in themselves.²¹² Let us consider how Aquinas addresses the problem of “inward pain:”

Inward pain is not caused by the apprehended likeness of a thing: for a man is not inwardly pained by the apprehended likeness itself, but by the thing which the likeness represents. And this thing is all the more perfectly apprehended by means of its likeness, as this likeness is more immaterial and abstract. Consequently inward pain is, of itself, greater, as being caused by a greater evil, forasmuch as evil is better known by an inward apprehension. (ST 1a 2ae 35, 7, ad 2)

What *causes* an “inward pain” here is not the reception of a mental being, an intelligible being or *form*, but the apprehension of the essence of evil. Understanding the extramental thing’s *form* as intelligible structure is the grasping of what *it means*, the *ratio*, not the reception of the extramental thing’s *form* itself. What is apprehended is a likeness of this *form*, not the *form* as such.²¹³

²¹¹ “Therefore, on this conception it becomes logically possible for a mind to have exactly the same concepts with the same intrinsic features of “indifferent representation” even if these concepts are not matched ever by any formally identical objects in reality.” (10)

²¹² “This is the problem of ontological commitment: “the charge is that by allowing universals or other beings of reason in their universe of discourse, medieval philosophers espousing this conception are committed to an unjustifiably bloated universe,” such as the common nature of Scotus. Besides, it also prevents desperate solution such as Ockham’s nominalism, which makes difficult to justify our knowledge of the extramental reality.” (Tradition 10)

²¹³ “Now it is proper to sense to take cognizance of things present; for the imagination apprehends the similitude of corporeal things, even in the absence of the things of which they bear the likeness; while the intellect apprehends universal ideas, which it can apprehend indifferently, whether the singulars be present or absent. And since the act of an appetitive power is a kind of inclination to the thing itself, the application of the appetitive power to the thing, in so far as it cleaves to it, gets by a kind of similitude, the name of sense, since, as it were, it acquires direct knowledge of the thing to which it cleaves, in so far as it takes complacency in it.” (ST 1a 2ae 15, 1c)

Chapter IV

Some objections

This last chapter discusses some objections to the view of Aquinas as a realist representationalist in epistemology. This dissertation does not concern itself with the problem of epistemological justification of our sensory perceptions; rather, its object is to show how realist representationalism fits Aquinas' account of cognition. Consequently, the objections below are concerned with whether or not it is plausible to understand Aquinas as a representationalist. The thesis defended here holds that, according to Aquinas, what the knower apprehends in the act of knowledge is something ontologically different from the individual extramental thing (although epistemologically and essentially, however, it is the same). A realist representationalist does not claim that a representative mental being is epistemologically different from the represented extramental thing; it only claims that the object of knowledge is ontologically different

from the extramental thing, and that the object is known indirectly through a mental representation.

There should be no doubt left that Aquinas holds that we know the extramental world, so he is a realist in epistemology as well. The problem is not whether we can access extramental reality and perceive it as it is, but rather of *how* we access it. When we ask, “which entity accounts for our knowledge?” we are not concerned with the content of knowledge, but with the way in which knowledge is presented to the mind. Aquinas certainly says that it is done through the *species intelligibilis*. Our questions in this study are the following: Is knowledge of extramental things direct or indirect? Is Aquinas a direct realist or a representationalist?

We have argued that the representational role of the *species* as an immediate object of knowledge does not prevent a realist view in epistemology: the known nature or intelligible structure of a thing is the ultimate object of knowledge. Accordingly, we must emphasize that a representative *species* is, ontologically speaking, an instrumental cause of cognition. The thing’s nature received in the phantasm, as well as in the *species intelligibilis*, later universalized by the concept formation, is an intelligible structure. It is data or information about the extramental thing and, epistemologically, it is independent of the being which represents it.

Let us see, however, some general objections concerning realist representationalism that may be raised against this view when it is used to describe Aquinas’ theory.

4.1 Is Direct Realism Different from Realist Representationalism?

The first objection that may be raised against realist representationalism is whether it actually differs from direct realism. Realist views hold that extramental things are the objects of knowledge, but they do not necessarily deny that there are causal intermediaries between perceived things and the mind, such as physiological or immaterial-spiritual mechanisms of knowledge.¹ However, if a realist representationalist affirms that the object of knowledge is only ontologically different from an extramental thing, and that the object is known indirectly through mental beings, there seems to be no difference between direct realism and realist representationalism from an ontological point of view. Both agree that the object of knowledge is a mental being and both agree that the known thing is an extramental being.

Nevertheless, there is a difference from an epistemological point of view. Both views differ in the way the object is known, either mediately or immediately. Realist views hold that extramental things are known immediately via concepts or mental beings, which are only biological or mechanical means to grasp the essence and/or features of extramental things.² Conversely, representationalist views support the mediated causal inference from features of mental representations to knowledge of extramental things.³

Pasnau offers medieval examples of direct realism when dealing with Ockham and Olivi:

For Aquinas, objects are cognized through an intermediary representation and likeness. For Ockham, the object itself, acting as a distance, directly produces an act of cognition, with the object as the intentional content. In contrast to Aquinas' species account, we can call this an *act account* of cognition insofar as it eliminates any distinction between the internal act of cognition and the internal representation of the external object.

¹ See above Chap I, p. 16 and n. 32.

² See above Chap I, p. 18, n. 37

³ See above Chap I, p. 18, n. 39

(Theories 164)

According to Olivi cognition should not (except in the cases of memory and imagination) be analyzed into an inner act of apprehension and an inner object of apprehension. In the face of the Aristotelian tradition's distinction between (1) the cognitive power, (2) the inner representation (the species), and (3) the act of cognition, Olivi refuses to distinguish (2) from (3). The inner representation, on his account, just is the act of cognition. (22)

The difference between these direct realist views and Aquinas' realist representationalism is the immediacy of knowledge. In order to attribute a direct view to Aquinas, Dewan insists on understanding the *species* as the act of knowledge, and not as any kind of medium. A *species* only redirects our mind toward the extramental thing, without representing it.⁴ This is, in general, the direct realist view of cognition. And this is the essential difference with a representational account. Nonetheless, the difference between realist representationalism and direct realism views in epistemology is as tough to settle as the classical dispute between empiricism and rationalism with regard to the origin of knowledge.⁵ Neither view can be demonstrated when either representational mental beings or immediate cognition are assumed, because these assumptions depend more on the plausibility of the cognitive account rather than on information concerning the means of cognition. However, this issue is beyond our current purpose.

4.2 Cognition is a Causal Act, not a Representational One

A similar objection, based on the previous approach, is that both direct realism and realist representationalism are the result of a causal act of cognition. The act starts with contact with an extramental thing and activates our sensory powers that, by means

⁴ See above Chap I, pp. 43-47. See also Steenberghen, p. 21.

⁵ See above Chap I, p. 18, n. 36

of physiological or immaterial-spiritual mechanisms, and eventually convey the extramental thing's information to the mind. Now, if the representationalist claims that the grasping of extramental thing involves only an "ordinary" awareness that is not psychological, –i.e., that there is not *conscious* or inferential awareness of perceiving a representative mental being– then both direct realism and realist representationalism must acknowledge the existence of mental beings while not regarding them as things that are ordinarily known.⁶ Thus, the differences between these views are negligible because, in the end, cognition is always a causal process. Indeed, this is the view of many scholars who attributed a direct realist view to Aquinas.⁷

However, despite the fact that there is a causal connection that starts from an extramental thing and ends up in the mind, we cannot rule out a significant difference between direct realism and realist representationalism: the assumption of representation as an object of knowledge. Although acquiring information about an extramental thing may be practically due to the same causal explanation, the acknowledgment of mental ideas or concepts allows the representationalist to explain the cognition of distant objects, memory, and the creation of non-existent beings through the faculty of imagination. That the direct realist can also give a plausible explanation for these three mental phenomena is not in question here, but these accounts will ontologically differ from those of a view that allows for mental representations.

In particular, Aquinas' realist representationalism does not defend a genuine causal explanation regarding the act of cognition. The extramental thing, as physical

⁶ See above in chap. II, n. 48, Pasnau pp. 96-7, and Hoffman p. 111.

⁷ See, for instance, Muller and Ross (above, chp. I p. 21), Dwean (p. 44), and Kretzmann (p. 34) among others.

entity, is only an occasional cause.⁸ Cognition is understood in Aquinas as an immanent process.⁹ Indeed, the selfsame representation of the thing, the phantasm, is not entirely a causal agent in the formation of the *species intelligibilis*. It is only an instrumental cause.¹⁰ What is conveyed by the intellective act of cognition, according to Aquinas, is the extramental thing's essence as intelligible structure, but not an individual concrete essence or a mental *form*. Therefore, Aquinas' account of cognition is not properly a causal theory of knowledge.

4.3 What is Cognized is Always a Representation

Although realist representationalism may insist that what is cognized, in the end, is an extramental thing, to hold that representations are the objects of knowledge concedes that what is cognized remains a representation. In a mirror, for instance, what is known is the image reflected in the mirror, but never the "real" extramental thing itself. A distortion in a mirror image leads to a misapprehension of the real being. Even if these mistakes can occur in a direct realist account, the probability of failing to grasp the real nature of an extramental thing is higher due to the admission of representations. If direct realism assertively holds that we grasp extramental things because of direct acts of cognition, the question is how we can confirm whether a representation re-presents an extramental thing as direct realism claims.¹¹

In order to prove that a representative account does not conflict with a realist position, we adapt an argument presented by Oakes with the intention of rebutting the

⁸ See above in chap. II, p. 182.

⁹ See above in chap. I, pp. 7-9.

¹⁰ See above chap. III, pp. 186-7.

¹¹ Hoffman also answers this objection; see above, chap. II, p. 110 and ff.

above objection against the so-called Traditional Causal Theory of Perception (TCT).¹² According to Oakes, the classical objection to TCT is the following: since extramental beings are objects of perceptual experience, the mind acquaints itself with perceptions but not with perceived beings. In other words, lacking a direct experience of extra-mental beings, the knower has to postulate “theoretical entities” which correspond to these beings (373-5).¹³ We are speaking here about two different entities: perceptions and representations.¹⁴ Oakes’ defense of TCT consists in showing that, although extramental beings are numerically different from their mental representations, and no information is independent of the experience of *sensa*, the knowledge of the former could be simultaneously (and by the same source) the knowledge of the latter (378-9). The paradigm of indirect perception is a mirror, by which the knowledge of an image implies the knowledge of the being itself. Thus, it is not only the case that the standard objection fails when it expresses the necessary existence of theoretical entities for the knowledge of extra-mental beings; but also that the TCT implies that extramental beings, as objects of perception, require in the mind a caused representation or a resemblance to them. (381)

An additional but no less important point made by Oakes is that the problem of a true or accurate representation of physical extramental beings is not a problem unique to

¹² The argument was offered to support “representative realism,” not “realist representationalism.” However, due to the fact that the latter view is a “lesser” version of representationalism (it implies that our concepts are epistemological dependant on the extramental thing), any argument that defends the former, defend the latter.

¹³ Oakes calls extra-mental beings “physical objects.” He uses the meaning of the word ‘object’ in two senses: as an extra-mental entity (physical object) and as the focal point of the mind (object of perception). See above sec. 3.1.2.

¹⁴ The first step against this standard objection is made by Lovejoy, who claims that the *intertemporal* cognition of physical objects (the use of memory) implies a clear counterfactual argument for the existence of theoretical entities. However, despite the fact that physical objects should be known by the effects they have upon us, the problem of the unwarranted non-experience inference from perceptions to representations is not solved: “...One could still ask (along with the critics) how such an ‘inference’ could ever be known to be warranted.” (Oakes 376-7)

the TCT. Most theories of perception have to deal with the issue of discriminating accurate knowledge (382-3). Accordingly, it does not matter what ontological theory is behind the representation: Kantian, indirect realism, and realist representationalism, as well as direct realism are all confronted by the same problem, i.e., whether human knowledge can ever be accurate with reference to extramental “reality.”¹⁵ Even the direct realists admits some kind of physiological or immaterial-spiritual mechanisms in order to grasp extramental things. Therefore, the quality of the reality about extramental things depends on the quality of these necessary means of cognition, and not on whether the cognition is understood as direct or indirect.

Although Oakes is explicitly talking about ideas (as mental entities that bear content *per se*), his argument can be used to explain how the *species* is the object of knowledge and, at the same time, allows knowledge of extramental thing. In Aquinas, this view is more plausible because the *species* is the likeness of an extramental thing’s *form* as essence.¹⁶ Aquinas does not postulate the existence of ideas as objects of knowledge epistemologically independent of extramental things, and the *species* must be regarded as a mental representation caused by the active intellect and the phantasm (which in turn comes from extramental things’ perception).¹⁷

Representative realism by itself, then, does not imply “less realism.” The main point is to maintain the knowledge of extramental entities by any means, direct or indirect. However, this knowledge cannot be based in a naïve account of the cognition of

¹⁵ It does not work, of course, with theories as Phenomenalism, Idealism, etc. that do not hold a correspondence between mind and reality.

¹⁶ In fact, the TCT can be regarded as an extension of a Thomist epistemology because it includes other forms of representationalism.

¹⁷ See the last two sections of chap. III, 3.3.2 and 3.3.3.

features. The knowledge of the extramental world is based on the acquisition of essence, via *species*. Although the object of knowledge is *species*, what is known at last is the same essence of a thing, an extramental thing's *form*, but only insofar as we can know it.

4.4 An Object in a Mirror is not a Mental Representation

An objection may arise based on a difference between the cognitive act accounts of realist representationalism and the above-mentioned TCT. As stated at the end of objection 4.2, the act of cognition as understood by Aquinas is not a genuine causal explanation of how we receive information. Thus, even if TCT can be defended by arguing that whatever is known by looking in a mirror (at the same time) allows us to know the real extramental thing which causes the reflection, this argument does not work in a non-causal theory of cognition like that of Aquinas. Indeed, the metaphor of the mirror was discarded due to its materialistic and not spiritual-cognitive character.¹⁸ As a result, the difference between an image caused by the extramental thing's reflection in a mirror and an intentional spiritual mental being make realist representation still suspicious in terms of its ability to “really” represent the object.

The Thomist account of cognition does not reject the notion of causally produced knowledge. What it does reject is the notion of “physical” causation (in Thomist terms, *formal* causation). Aquinas not only recognizes, but also insists on, the knowledge of the extramental things. This is the result of contact with either the *species in medio* or the thing itself. In the Aristotelian-Thomist account of knowledge, sensible or physical causation does not directly produce cognition, because knowledge is an activity of the

¹⁸ See above chap. III, p. 203.

soul; therefore, sensible cognition is only the occasional cause of the reception of intelligible *forms*.¹⁹ Nevertheless, Aquinas makes cognition a “more spiritual” activity by understanding the reception of these *forms*, not as intelligible beings (such as causal *forms* or individual *forms* of extramental things), but as intelligible structures or natures:

Since Aristotle did not allow that forms of natural things exist apart from matter, and as forms existing in matter are not actually intelligible; it follows that the natures of forms of the sensible things which we understand are not actually intelligible... We must therefore assign on the part of the intellect some power to make things actually intelligible, by abstraction of the species from material conditions. *ST* 1a, 79, 3c

What is abstracted, as we saw above (sec. 3.3.1), is not a weak copy of the individual *form* of an extramental thing, but the essence or nature as intelligible structure (sec. 3.3.2). The Thomist causal theory of cognition is “causal,” but not physical. Indeed, Aquinas’ rejection of Platonic philosophy indicates that an intelligible structure cannot be grasped from any other source than an extramental thing itself.

4.5 Aquinas’ Rejection of Representationalism

A particular objection to the realist representationalist view is found in the fact that Aquinas did not believe that the *species* represents an extramental thing (despite the fact that he uses the language of representation). Thus, the realism of Aquinas is only accurately preserved if we follow Aquinas’ dictum that the object of knowledge is an extramental thing. Most of Aquinas’ interpretations as anti-representationalist are based on texts where he denies that the *species* is the object of knowledge. It has been shown, however, that the term “object of knowledge” must be split in two: one “immediate object of knowledge,” and another “ultimate object of knowledge” which corresponds to

¹⁹ See above chap. III, sec. 3.1.4, and Klima, p. 201.

an object that is known.²⁰ Bearing this distinction in mind, all passages seem to deny that an extramental thing (or an individual essence) can be known immediately. In other words, although Aquinas is opposed to those who believe that a sensible extramental thing does not play a role in cognition (such as Platonist philosophers), he clearly states that the object of knowledge is known via *species*. In conclusion, Aquinas rejects representationalism because what is known –the ultimate object of knowledge– is the extramental thing’s *form* as essence, the intelligible structure or nature.

The objector, then, points out that Aquinas insists on stating that the object of knowledge is an extramental thing’s essence. Nevertheless, we have to take into account that he is not arguing against Cartesian or Lockean representationalists, but against medieval Platonic realists. According to Copleston, to search for answers from a subjectivist point of view is in itself something of an anachronism.²¹ The problem for Aquinas is to show that the knowledge of extramental things is based on experience, that an extramental thing’s *form* cannot be known directly, but only through an abstractive process (Moreau 64-5). Aquinas cannot be taken as a mere empiricist, insisting on the cognition of raw sense data:²² to stress that the ultimate object of knowledge is an extramental thing’s essence does not rule out that Aquinas is a realist representationalist. Moderate realism in epistemology implies, in a Thomistic context, that we grasp an extramental thing’s essence in a representative way, via *species*.

²⁰ See above, chap. III p. 203.

²¹ Vol. II, p. 388.

²² [Aquinas] “...should not be confused with post medieval empiricists who assert that sense data and/or ideas derived from them [objects/things], are not only what we know first, but that they are all what we know. The Augustinian theory of signs which Thomas adopted avoid these problems by insisting that we begin with existing things, that we assent that the signs men make of them may be true, but incomplete, and that we can judge this fact by comparing the sign with the original. For Thomas, sensibly derived intellectual signs do not leave the knower trapped within his own mind. Neither does the priority of being render human cognition irrelevant. Signs are true, so far as they go, and the knower is capable of judging that they do not go the whole way.” (Colish 176-7)

Conclusions

1. For Aquinas, every change, or *immutatio*, requires in one way or another some abstraction: sensible change, hylomorphic *information*, and cognition. Aquinas distinguishes natural from spiritual change by saying that, for instance, the action of fire is an efficient-*formal* causation (passing a *form* of heat without matter), whereas the knowledge of an extramental thing (spiritual change) does not involve this type of causation. The *actualization* or “*immutatio*” (change) of the passive intellect by the combined activity of the image (phantasm) and the agent intellect in the creation of a *species intelligibilis* is different from physical acts of efficient causation. If it were similar to the ordinary efficient causation that occurs in natural *information* (as in fire heating water or as in the *formal* causation of the hylomorphic composition), then the knower would become a natural likeness of the known thing.

2. Due to the differences between physical and spiritual kinds of change, the cognition of an extramental thing is not directly caused by the composite extramental thing, or by its causal *form*, although the thing “occasionally” originates in the cognition of the thing. Cognition is an immanent act because the sensible *species* is not received from outside, but is actualized by the soul itself: the senses cannot give an account of whatever they perceive, insofar as this is an act performed by the intellectual soul. Yet, cognition for Aquinas results in knowledge of an extramental thing. The extramental thing’s *form*, considered as essence, is conveyed first by the sensible *species*, then by the *phantasmata*, and finally by the *species intelligibilis*; it presents to the mind information about an individual extramental thing. But scientific knowledge is about essences, and the mind “*forms*” a *species intelligibilis* which conveys the essence of an extramental thing (or the essences of its accidents). Although the *species intelligibilis* is called a likeness of an extramental thing, what is known is the essence of a thing, which stands in the mind as another instantiation of the nature.

3. The abstractive act that results in the creation of a *species intelligibilis* is the first kind of abstraction. The first apprehension leads to the grasping of an abstract quiddity, which differs from the individual extramental thing’s quiddity. This is an abstracted *form* considered as essence that can be received by the mind. Further abstractions strip other levels of materiality: a thing’s quiddity is, in turn, abstracted and conceived as a universal essence, a knowledgeable principle which necessarily differs from the abstracted extramental thing’s quiddity. From this universal *form* or quiddity of an extramental thing, another *form* or essence is grasped, as pure and absolute, without any abstracted matter, and this is expressed by a universal concept.

4. For Aquinas, a *form* explains only part of the functions of the individual extramental thing (as it is only part of the composite's essence); a *form* is the cause of the individual, a principle of being. A causal *form* cannot be known as such, because it is an individual principle united to matter in the composite. However, the *form* of the thing's quiddity, due to its mixture with designed matter, is also an unknowable *form*: the individual essence of a hylomorphic composite. What can be known is a *form* considered as essence, and it differs from the individual thing's own substantial *form*. A *species intelligibilis* conveys the knowable essence of a thing, which is called *forma totius*, but not the causal *form* (*forma partis*), which is part of the composite and individual. The knowable essence is ontologically different from the causal and substantial *forms* found in the individual composite, and there is no other way to know our own quiddity than "to abstract" it as a *species intelligibilis*; the knowable essence is only the likeness of the individual essence.

5. The traditional interpretation of Aquinas as a direct realist cannot be supported without contradictions regarding the representative role of the *species intelligibilis*. Aquinas' rejection of the *species* as the object of knowledge supposedly provides enough reasons to deny any representationalism. Yet, Aquinas affirms that whatever is known corresponds to the essence of the extramental thing, not that the individual extramental thing's *form* is instantiated in the mind. What can be deduced from his analysis is a congruent epistemic realism, but there are no grounds for denying that Aquinas' *species intelligibilis* is a representative mental being. The role of the *species intelligibilis* as a source of information concerning an extramental thing's essence confirms that Aquinas favors an epistemic realism, which plausibly corresponds to a metaphysical realism. That

the *species* is a medium by which we know an extramental thing's essence, implies that Aquinas would answer the question "how do we know" (not "what do we know") in a manner that further implies representationalism.

6. The view that Aquinas is a direct realist, because the *species intelligibilis* is ontologically identical with either the individual or the causal *form* of the extramental thing, places the supporters of this position in the dilemma of trying to explain how a causal *form*, which is the principle of anhylomorphic composite, can exist in the soul. In other words, how this causal *form* can be present in the soul without *informing* the knowing substance. It is not enough to say that this causal *form* ceases to be a causal *form* due to the fact that it has been dematerialized, because this very change requires in one way or another some abstraction. The spiritual and immaterial condition of a causal *form* is not the basis for an explanation of cognition, but rather the explanation has to refer to the ontological mode of being of the abstracted extramental thing's *form*: this mode of being is a necessary condition of its being grasped by the soul. A *species intelligibilis* originates in the cognition of an extramental thing, but is not causally produced by the action of the thing or its *form*, for cognition is an immanent act.

7. An objection to describing Aquinas as a representationalist is that, despite the fact that the intellect knows via the *species*, what is known is the extramental thing's *form*. Although Aquinas sometimes uses *form* and *species* interchangeably, strictly speaking *these terms* do not mean the same thing. A simple retort to this objection is that, knowing the *species* is sufficient for knowing the extramental thing's *form*. But this is not the case, because what is known via the *species* is the essence of a thing, not its causal *form*. In fact, the object of knowledge (epistemology) is the *species*, and the known

object (ontology) is the thing's essence. The *species intelligibilis* and the extramental thing's causal *form* are two ontologically different modes of being of the same essence or nature. It is the extramental thing's *form* considered as essence that occasionally causes our soul to create a *species* according to an extramental thing's exemplar *form* or nature.

8. Representationalism is usually understood as “representative realism,” a modern view which holds that the knower is aware of concepts or ideas that allow him to know extramental things, but without preserving all the extramental thing's features; the knower knows an extramental thing indirectly (via subjective representations) but also incompletely. Contemporary authors are frequently devoted to establishing the relationships between signs, words, images, ideas, sentences, and other representative entities (conceived of as mentally subsistent beings having proper content and features) and the beings to which they refer. The current problem centers around the question of how the content (epistemologically different from any reference to a being that is known) symbolically “represents” the being that is known. However, to hold that the *species* is a medium of knowledge does not support the conclusion that Aquinas is a modern representationalist: representationalism is unwarrantedly associated with a modern view, either post-Cartesian or Lockean. Hence, a representationalist needs not claim that the idea or mental being is different from the extramental thing it represents; it only need claim that the object of knowledge is other than the extramental thing itself, and that the object is known indirectly through a mental representation.

9. Realist representationalism is the view that knowledge of extramental things comes to the mind through representations, which in turn are mental beings ontologically different from the extramental things that they represent. However, epistemologically

speaking, the content of this being matches the represented extramental thing: they are “realist” representations. The only characteristic of these types of mental representations is that they immediately refer to the extramental represented beings. They are merely intentional mental beings, and in looking at them we do not look at anything but the same extramental things represented. The realist representationalist can access extramental things as effectively as the direct realist: thus, there seems to be no difference between direct realism and realist representationalism from an ontological point of view. Both agree that the object of knowledge is a mental being and both agree that the known thing is an extramental thing. The difference occurs in the epistemological account. Both views differ in the way the object is known, either mediately or immediately. Realist views hold that the extramental thing is known immediately via concepts or mental beings, which are only biological or mechanical means to grasp the essences and features of extramental things. Conversely, representationalist views support the mediated causal inference from represented features for knowledge of extramental things.

10. *Species* and phantasms are called “instrumental” causes because they do not affect the passive intellect by informing it. Both are instrumental causes of the act of cognition; the *species intelligibilis* is abstracted from the phantasm through the action of the agent intellect and then impressed on the passive intellect. As a consequence, the extramental thing’s *form* is known, not as it exists in a natural mode of being, but as *essential* information. It means that the content of the *species* is not a “being,” but information about *this* being: the content of the *species intelligibilis* is the extramental thing’s *form* as universal essence, as intelligible structure, not the individual extramental

thing's *form*. The exemplar *forms* allow us to know a thing's quiddity: the exemplar is the source of our knowledge, not the causal or individual *form*.

11. The cognition of an individual extramental thing is made possible by a representational mental being, the *species intelligibilis*. But the union between the intellect and an extramental thing takes place through a perception of the thing's *form* considered as essence: the nature. Seeing the *species* is seeing the extramental thing in an analogous way in which the eye receives a physical image of a real extramental thing as though a mirror: what is seen is the mirror image, but what is “really” seen is the extramental thing in the mirror. There is only one act of cognition, and one known thing. The mirror image is not *the* thing and yet, in reaching the eye, produces cognition of *the* thing. Analogously, the essence of the thing produces cognition by “actualizing” the intellect with the extramental thing's nature, i.e., by grasping the intelligible structure or nature. The Thomist account of cognition is not properly a causal theory of knowledge: what is conveyed by the intellective act of cognition, according to Aquinas, is the extramental thing's essence considered as intelligible structure, but not an intelligible being or a mental *form*.

12. Knowledge consists in the “*information*” of the passive intellect, the act that unites the intellect and the cognized thing's essence. But this *information* is not a “natural” causal *information*, similar to the physical acts in the sensible world. The nature is in itself a “non-existent” intelligible structure; it is always either a thought or an extramental reality. The information conveyed by the representational concept to the mind and the structure of the thing existing in the extramental reality, are just one codified system. What is encoded, then, is the information or data about the represented

being, the individual extramental thing's essence. What is transmitted by the representation is the intelligible structure that represents the essence of the represented being. Understanding the extramental thing's *form* as intelligible structure involves grasping what *it means*, the *ratio*, not the reception of the individual extramental thing's *form* itself. What is apprehended is a likeness of this *form* considered as essence not the *form* as intelligible being.

13. The encoded information of the likeness of an extramental thing's *form* received in the mind is like a computer program: it may exist running in a computer, saved on the creator's computer or on paper in computational jargon. In each case, we have different "sensible" instantiations of the same intelligible structure. Still, this structure is in the mind of a programmer or a student of computer science, not in *esse reale*, but intentionally mode. Mind and thing need not be numerically identical; they are merely *formally* identical. The act of understanding is the union of the extramental thing's *form* and the intellect. Accordingly, the essence or nature itself as system of encoded information does not have an existence of its own, but exists in these other ways. And it can be representatively cognized.

14. The union of the knower and the known is the last formal phase of first apprehension, before the production of a "concept" or *verbum mentis* by the agent intellect. In order to understand this union, a *species* is conceived as an accident of the soul, and its instrumental function is to make this union *ontologically* possible, because an individual extramental thing's *form* cannot be grasped as such. Thus, a *species* must be conceived as a type of *form* which can "re-present" the extramental thing's *form* considered as essence in the mind. The *species* makes viable the union of the extramental

thing's *form* with the possible intellect by conveying the former to the latter. Aquinas is a realist representationalist because what we know is the essence, which is different than the *species*; yet we know it through a *species intelligibilis*.

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